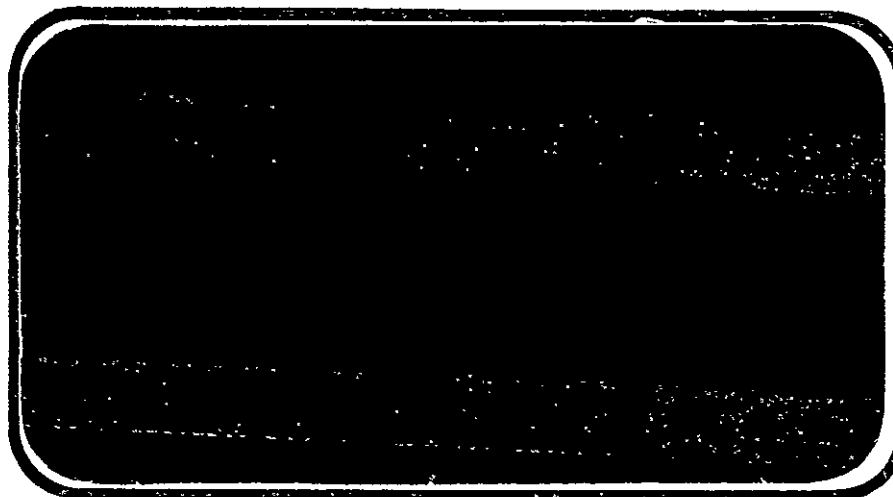




NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NASA CR-

141540



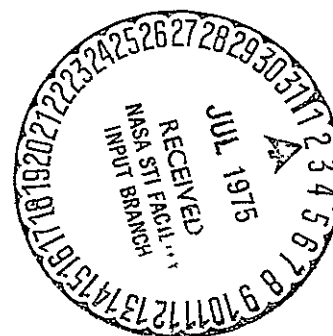
(NASA-CR-141540) RESULTS OF TESTS ON A  
ROCKWELL INTERNATIONAL SPACE SHUTTLE ORBITER  
(-139 CONFIGURATION) 0.0175-SCALE MODEL (NO.  
29-0) IN AEDC TUNNEL B TO DETERMINE BOUNDARY  
LAYER CHARACTERISTICS (Chrysler Corp.)

N75-24813

Unclas  
G3/18 25981

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT



JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANAGEMENT services

SPACE DIVISION



CHRYSLER  
CORPORATION

May, 1975

DMS-DR-2251  
NASA-CR-141,540

RESULTS OF TESTS ON A ROCKWELL INTERNATIONAL  
SPACE SHUTTLE ORBITER (-139 CONFIGURATION)  
0.0175-SCALE MODEL (NO. 29-0) IN AEDC TUNNEL B TO  
DETERMINE BOUNDARY LAYER CHARACTERISTICS (OH9)

By

M. Quan  
Shuttle Aero Sciences  
Rockwell International Space Division

Prepared under NASA Contract Number NAS9-13247

By

Data Management Services  
Chrysler Corporation Space Division  
New Orleans, La. 70189

for

Engineering Analysis Division

Johnson Space Center  
National Aeronautics and Space Administration  
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: AEDC B VA 353  
NASA Series Number: OH9  
Model Number 29-0  
Test Dates: 18 through 20 September 1973  
Occupancy Hours: 16

FACILITY COORDINATOR:

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Chrysler Corporation Space Division assumes no responsibility for the data presented other than display characteristics.

RESULTS OF TESTS ON A ROCKWELL INTERNATIONAL  
SPACE SHUTTLE ORBITER (-139 CONFIGURATION)  
0.0175-SCALE MODEL (NO. 29-0) IN AEDC TUNNEL B TO  
DETERMINE BOUNDARY LAYER CHARACTERISTICS (OH9)

By

M. Quan, Rockwell International Space Division

ABSTRACT

This report presents results of wind tunnel tests conducted to determine boundary layer characteristics on the lower surface of a Rockwell International Space Shuttle Orbiter. The model used was a 0.0175-scale model built to Rockwell Orbiter lines VL70-000139. The model identity number is 29-0. These tests, designated OH-9, were conducted in the AEDC Tunnel B.

Total pressure and temperature profile data at various model stations were obtained using a movable, four (4) degree of freedom probe mechanism and static pressure taps on the model surface. During a typical run, the probe was located over a pre-selected model location, then driven down through the boundary layer until contact was made with the model surface.



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## NOMENCLATURE

<u>Symbol</u>	<u>Definition</u>
a	speed of sound, ft/sec
ALPHA-MODEL	model angle of attack, deg
ALPHA-SECTOR	tunnel sector pitch angle, deg
CH	pressure system channel numbers
CP	pressure coefficient:
	$CP = \frac{PM - P-INF}{Q-INF}$
L	model reference length, 22.58 in.
M	Mach number
MU-INF	free-stream viscosity, lb-sec/ft <sup>2</sup>
P or p	static pressure, psia
P-INF	free-stream static pressure, psia
PM or p <sub>m</sub>	model surface static pressure, psia
PO or p <sub>0</sub>	tunnel stilling chamber pressure, psia
POS	pressure system valve position
P01 or p <sub>0</sub> '	computed free-stream pitot pressure, psia
PP1	survey pitot pressure, lower or inboard probe, psia
PP2	survey pitot pressure, upper probe, psia
Q-INF or q <sub>∞</sub>	free-stream dynamic pressure, psia
RE	Reynolds number
RE/FT or Re/ft	free-stream unit Reynolds number, ft <sup>-1</sup>
RHO-INF	free-stream density, slug/ft <sup>3</sup>

# NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Definition</u>
ROLL-MODEL	model roll angle, deg.
T	static temperature, °R
T-INF	free-stream static temperature, °R
T0 or T <sub>0</sub>	tunnel stilling chamber temperature, °R
TT1	survey total temperature, probe number 1, °R
TT2	survey total temperature, probe number 2, °R
TW or T <sub>w</sub>	model wall temperature, °R
TW1, TW2, TW3	model wall temperature measured by thermocouples TW1, TW2, TW3
u	velocity, ft/sec
U-INF	free-stream velocity, ft/sec
X	axial distance from the nose, in.
Y	side distance from the model centerline, in.
YAW	model yaw angle, deg.
ZP	survey probe drive axis
ZP1	number 1 pitot probe height from the model along ZP, in.
ZP2	number 2 pitot probe height from the model along ZP, in.
ZT1	number 1 temperature probe height from the model along ZP, in.
ZT2	number 2 temperature probe height from the model along ZP, in.
α <sub>m</sub>	model angle of attack, deg.

## NOMENCLATURE (Concluded)

<u>Symbol</u>	<u>Definition</u>
$\delta$	boundary-layer thickness, in.
$\mu$	viscosity, lb-sec/ft <sup>2</sup>
$\rho$	density, slugs/ft <sup>3</sup>

### Subscripts

$e$	boundary-layer-edge condition
$\infty$	free-stream condition

## INTRODUCTION

This report presents details and data from wind tunnel tests conducted to determine boundary layer characteristics over the lower surface of a Rockwell Space Shuttle Orbiter. The NASA/Rockwell number for this test was OH-9 and the facility project number was VA 353. These tests were conducted in Tunnel B of the von Karman Facility at the Arnold Engineering Development Center during September 18 and 20, 1973..

The model used was an 0.0175-scale Orbiter model based on Rockwell lines VL70-000139. The number assigned to this model was 29-0.

## REMARKS

Wind tunnel tests were conducted on a 0.0175-scale model of the Rockwell International Space Shuttle Orbiter to determine the boundary layer characteristics over the lower surface. These characteristics were determined by measurements taken by a four degree of freedom total temperature and pressure probe and static pressure taps on the model surface.

The test procedure involved keeping the model wall temperature relatively low, thus obtaining a relatively low model wall to stagnation temperature ratio. This permitted the formation of a boundary layer total temperature profile with a sharp bend (because of the relatively low model wall temperature) which facilitated accurate determination of the boundary layer edge location.

Using the remotely driven probe mechanism to measure total temperature and total pressure, a number of measurement points could be obtained at various distances above a point on the model surface. This information, used with known tunnel conditions and model wall static pressures, could then be used to calculate boundary layer edge conditions.

A total of 61 data runs were conducted at Reynolds numbers of .68 and  $1.1 \times 10^6/\text{ft}$ . Model angle of attack was set at 15.5°, 25°, 30° and 35°. Runs were initially made to record model static pressures for all angles of attack and Reynolds numbers. The rest of the runs were pressure/temperature surveys using the probe mechanism taking data vertically above selected model centerline static pressure taps. The data in this report are thus either static pressure measurements or total temperatures and pressures



# REMARKS (Concluded)

as a function of  $z$  (inches above the model surface, body axis system).

This test was documented by AEDC report number AEDC-DR-74-9 (reference 2), by L. D. Carter and W. R. Martindale (both ARO; Inc.). Some of the information contained in the following sections was obtained from this reference which, in addition, presents the data in plotted form.

## CONFIGURATIONS INVESTIGATED

The model tested was a 0.0175-scale model of the Space Shuttle Orbiter built to Rockwell lines VL70-000139. Designated model number 29-0, this model was fabricated from 15-5 PH stainless steel. The wing and vertical tail were each built in one solid piece. Exterior contour lines follow the control surfaces in an undeflected position.

There were no removable, deflectable, or interchangeable parts for this model and no configuration variations could be tested. Therefore, individual components were not referred to. However, for information, the following nomenclature symbols had been assigned to the components of the configuration tested:

B<sub>17</sub> - Fuselage body

C<sub>7</sub> - Canopy

F<sub>5</sub> - Body flap

M<sub>4</sub> - OMS pods

W<sub>103</sub> - Wing

V<sub>7</sub> - Vertical tail

Component geometry is detailed in Table III.

## INSTRUMENTATION

The model was instrumented with twenty-one static pressure taps on the lower surface. In addition, there were three 1/8-inch coaxial thermocouples on the model centerline to record the model surface temperature. Locations of the static pressure taps and thermocouples are shown in Figure 2b.

The model boundary layer surveys were conducted with a four degree of freedom remote drive mechanism. This system (shown in Figures 2c, 2d, and 2e) was used to position total temperature and pressure probes over a model survey station and traverse them through various heights above the model perpendicular to the centerline. The complete system could be pitched to compensate for model angles of attack. However, pitch drive was limited to 29 degrees, so surveys made at model angles of attack of 30 and 35 degrees were not perpendicular to model centerline.

Two different length probe supports were necessary to survey the required model positions because of the limited vertical drive of the system (see Figures 2c and d). Each of these probe supports had two pitot pressure probes on it, one above the other. On either side of the lower pressure probe, there were Chromel-Alumel total temperature probes. The .010 inch diameter probe was the primary instrument while the .020 inch diameter one was a backup.

## TEST FACILITY DESCRIPTION

Arnold Engineering Development Center (AEDC) is an Air Force facility located in Tullahoma, Tenn. The tunnel used, Tunnel B, is in the von Karman Facility. Engineering and other technical operations in this tunnel are conducted by contractor personnel of ARO, Inc.

Tunnel B is a continuous, closed circuit, variable density wind tunnel with an axisymmetric contoured nozzle and a 50-inch diameter test section. The tunnel can be operated at nominal Mach numbers of 6 or 8 at stagnation pressures from 20 to 300 and 50 to 900 psia, respectively, and at stagnation temperatures of up to 1350°R. The model may be injected into the tunnel for a test run and then retracted for model cooling, or model changes, without interrupting the tunnel flow.

## TEST PROCEDURE

The test was designed to use total temperature to locate the boundary layer edge. Measurements of total temperature and pressure were made at discrete intervals from the model surface using a four degree of freedom remote drive mechanism. This mechanism is described in more detail in the Instrumentation Section.

A sharp bend in the total temperature measurement value was used to indicate the boundary layer edge location. This condition only occurred with a laminar boundary layer. Boundary layer separation could have resulted from probe interference, but it was stated by AEDC that, from their experience, a safe criterion to prevent this was the probe diameter be less than 1/6 of the local boundary layer thickness. Since the minimum probe diameter was limited by physical constraints, the tunnel was operated mostly at the lowest Reynolds number ( $RE/FT = 0.68 \times 10^6$ ) possible with this model to produce a thick boundary layer.

A cold wall model was necessary to produce the sharp inflection in total temperature measurements (used to locate the boundary layer edge). To obtain these cold wall conditions for the flow field surveys, the initial wall temperature and the time of aerodynamic heating of the model were kept at a minimum. The model, therefore, was retracted from the tunnel flow between surveys and cooled to about 530°R while the probes were being positioned with the remote drive mechanism in the test section for the next survey. The model was then injected into the test section in an inverted position and the survey started as the probes were driven toward

## TEST PROCEDURE (Concluded)

the model surface. As the probe approached the boundary layer edge during a survey with its high pressure gradient, the probe drive was changed from a continuous mode to drive-pause to allow pressure stabilization to the transducers. Drive rate during the continuous mode was approximately 0.02 inch per second with total travel about 1.25 inches. The data were recorded at 1.7 sec. intervals during this portion of the survey. When the lower pitot probe made contact with the model, a fouling circuit was triggered, recording the final survey data point and establishing probe height zero. After driving the probes clear, the model was retracted from the tunnel for cooling and the cycle repeated for the next run. The model surface temperatures were monitored during this testing-cooling phase.

Model surface static pressure data were obtained in runs separate from the flow field surveys.

## DATA REDUCTION

The boundary layer thickness,  $\delta$ , is defined as that distance from the surface at which the temperature is 99.5 percent of the maximum recorded value. The measured pitot pressure at this  $\delta$  and the model surface static pressure corresponding to the particular survey location were used to determine the boundary layer edge Mach number. The other edge conditions were established with this Mach number and isentropic flow relations. These data are summarized in Table I.

The survey heights listed in the tabulated data were determined using the geometric center of each probe. The zero probe height point, obtained when the lower pitot probe made contact with the model surface, was used to reference distances above the model surface.

Some of the information in this report, and especially this section, were obtained from Ref. 2. Statements made below on data precision are from this reference with no further attempt to verify their accuracy.

The Tunnel B stilling chamber pressure was measured with a transducer to an estimated uncertainty of  $\pm 0.2$  percent. The stilling chamber temperature was measured with thermocouples with uncertainties of  $\pm 0.75$  percent. The free-stream Mach number uncertainty is  $\pm .30$  percent which when using the Taylor series method of error propagation, results in the following uncertainties of the free-stream properties:

Free-stream Uncertainties,  $\pm$  Percent

$\frac{M_\infty}{0.3}$	$\frac{P_0}{0.8}$	$\frac{T_0}{0.5}$	$\frac{P_\infty}{2.1}$	$\frac{T}{0.75}$	$\frac{P'_0}{1.5}$	$\frac{q_\infty}{1.5}$	$\frac{Re/ft}{1.4}$
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## DATA REDUCTION (Continued)

The model surface static pressures were measured with individual transducers with an uncertainty of  $\pm 0.001$  psia. Using the Taylor series of error propagation with this and the free stream uncertainties the surface pressure data, uncertainties are as follows:

Surface Pressure Uncertainties, Percent			
<u>PM/P-INF</u>	<u>PM/PO</u>	<u>PM/PO1</u>	<u>CP</u>
0.8	1.6	2.1	1.7

The two Chromel-Alumel total temperature probes were positioned on either side of the lower of the two pressure pitot probes. Probes similar to these, previously tested in Tunnel B, exhibited a free-stream recovery factor of about 0.9. The tabulated probe temperature data are measured values and are not corrected for conduction or radiation losses.

The transducers connected to the pitot pressure probes have an uncertainty of  $\pm .01$  psia, which when combined with the free-stream uncertainties, yield an uncertainty in the ratio  $PP1/P_0'$  and  $PP2/P_0'$  of from  $\pm .008$  to  $\pm .027$  for values of the ratio from 0.25 to 3.5, respectively.

The procedure during a survey was that as the probes approached the boundary layer edge, the probe drive was changed from a continuous mode to drive-pause to allow for pressure stabilization to the transducers. As a result, a discontinuity resulted in the data in this region. Data points in such discontinuities were removed from the data if it was felt that their inclusion may confuse the user. Additional points were deleted for the same reason for those data groups affected by the bow shock. A pressure



## DATA REDUCTION (Concluded)

stabilization error resulted as the probe traversed through the high pressure gradient of the shock wave.

## REFERENCES

1. Wilkinson, E. E., "Pretest Information for Tests of the 0.0175-Scale Space Shuttle Vehicle Heat Transfer Model 29-0 in the AEDC Tunnel B (OH-9), "SD73-SH-0173A, dated May 22, 1973.
2. Carter, L. D. and Martindale, W. R., "Test Results from the NASA/Rockwell International Space Shuttle Test (OH-9) Conducted in the AEDC-VKF Tunnel B," AEDC-DR-74-9, dated January 24, 1974.

TABLE I - TEST CONDITIONS

## BOUNDARY-LAYER-EDGE CONDITIONS

Group	$\times 10^6$ Re/ft	$\alpha_m$	$x/L$	$\delta$	$p_p/p_o$	$p_m/p_o$	$p_m/p_p$	$M_e$	$T_e/T_\infty$	$a_e/a_\infty$	$u_e/u_\infty$	$\rho_e/\rho_\infty$	$\mu_e/\mu_\infty$	$Re_e/Re_\infty$
1	0.7	30.0												
2														
3			0.40	0.063	1.830	0.295	0.1612	2.11	7.1652	2.6768	0.7131	3.344	5.960	0.4001
4			0.30	0.060	1.658	0.290	0.1749	2.015	7.475	2.7341	0.6956	3.151	6.115	0.3584
5			0.20	0.056	1.536	0.287	0.1868	1.94	7.728	2.7799	0.6839	3.016	6.241	0.3291
6														
7			0.10	0.040	1.421	0.375	0.2638	1.595	8.977	2.996	0.6034	3.393	6.950	0.2945
8			0.60	0.076	2.333	0.310	0.1329	2.34	6.465	2.543	0.7512	3.895	5.493	0.5326
9		25.0	0.50	0.084	1.848	0.225	0.12175	2.45	6.155	2.481	0.7075	2.969	5.298	0.4301
10			0.40	0.069	1.704	0.215	0.1262	2.405	6.280	2.506	0.7010	2.781	5.385	0.3930
11			0.30	0.074	1.511	0.205	0.1357	2.31	6.552	2.560	0.7456	2.541	5.563	0.3407
12			0.20	0.066	1.405	0.215	0.1530	2.17	6.975	2.641	0.7236	2.503	5.835	0.3104
13			0.10	0.042	1.314	0.285	0.2169	1.79	8.255	2.873	0.6454	2.804	6.581	0.2767
14		15.5	0.30	0.104	0.887	0.0825	0.0930	2.825	5.217	2.284	0.8148	1.284	4.684	0.2234
15			0.20	0.092	0.922	0.120	0.1301	2.37	6.379	2.526	0.7558	1.528	5.451	0.2119
16			0.10	0.056	1.010	0.150	0.1485	2.20	6.883	2.624	0.7258	1.770	5.758	0.2240
17		35.0	0.70	0.076	2.521	0.388	0.1539	2.16	7.007	2.647	0.7219	4.498	5.833	0.5567
18			0.60	0.074	2.388	0.399	0.1671	2.07	7.294	2.701	0.7059	4.443	6.006	0.5222
19			0.50	0.066	2.188	0.390	0.1782	1.99	7.559	2.749	0.6938	4.191	6.160	0.4699
20			0.40	0.061	1.965	0.385	0.1959	1.89	7.901	2.811	0.6738	3.958	6.359	0.4174
21			0.30	0.058	1.749	0.379	0.2167	1.79	8.255	2.873	0.6493	3.729	6.558	0.3692
22			0.20	0.055	1.570	0.373	0.2345	1.71	8.547	2.923	0.6312	3.545	6.720	0.3329
23		30.0	0.50	0.068	2.148	0.305	0.1420	2.26	6.701	2.588	0.7356	3.697	5.648	0.4835
24	1.1		0.40	0.061	1.775	0.295	0.1662	2.07	7.845	2.710	0.7057	3.287	6.033	0.3845
25			0.50	0.055	2.008	0.305	0.1519	2.18	6.993	2.645	0.7251	3.969	5.836	0.4435
26			0.30	0.043	1.613	0.293	0.1816	1.97	7.680	2.771	0.6867	3.122	6.256	0.3427
27														

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TABLE I  
(CONCLUDED)

## BOUNDARY-LAYER-EDGE CONDITIONS

Group	$\times 10^6$ Re/ft	$\alpha_m$	$x/L$	$\delta$	$p_p/p_o'$	$p_m/p_o'$	$p_m/p_p$	$M_e$	$T_e/T_\infty$	$a_e/a_\infty$	$u_e/u_\infty$	$\rho_e/\rho_\infty$	$\mu_e/\mu_\infty$	$Re_e/Re_\infty$
35	0.7	30.0	0.60	0.069	2.187	0.310	0.1417	2.26	6.701	2.588	0.7336	3.7579	5.661	0.4904
36			1.00	0.143	2.041	0.205	0.1004	2.71	5.487	2.342	0.5015	3.0349	4.872	0.4993
37			0.90	0.109	2.221	0.270	0.1216	2.45	6.155	2.481	0.7075	3.5628	5.313	0.5146
38			0.80	0.091	2.383	0.319	0.1339	2.33	6.494	2.548	0.7497	3.9899	5.527	0.5412
39			0.70	0.077	2.197	0.300	0.1365	2.305	6.567	2.563	0.7458	3.7106	5.572	0.4967
40		35.0	1.00	0.132	2.285	0.280	0.1225	2.44	6.183	2.486	0.7661	3.6782	5.326	0.5291
41			0.90	0.104	2.432	0.350	0.1439	2.24	6.761	2.600	0.7354	4.2050	5.687	0.5438
42			0.80	0.079	2.461	0.405	0.1646	2.08	7.262	2.695	0.7077	4.5301	5.990	0.5352
43		25.0	1.00	0.172	1.797	0.150	0.0835	2.99	4.858	2.204	0.8321	2.5078	4.425	0.4716
44			0.90	0.134	2.017	0.200	0.0992	2.73	5.439	2.332	0.8039	2.9870	4.836	0.4766
45			0.80	0.108	2.199	0.237	0.1078	2.61	5.734	2.395	0.7891	3.3574	5.036	0.5260
46			0.70	0.088	1.933	0.217	0.1123	2.56	5.862	2.421	0.7826	3.0068	5.124	0.4592
47	1.1	15.5	0.60	0.077	1.758	0.227	0.1291	2.37	6.379	2.526	0.7558	2.8904	5.459	0.4002
48			1.00	0.283	1.023	0.107	0.1046	2.66	5.608	2.368	0.7954	1.5496	4.950	0.249
49			0.90	0.222	1.210	0.106	0.0883	2.90	5.050	2.247	0.8229	1.7048	4.561	0.308
50			0.80	0.181	1.358	0.103	0.0758	3.14	4.558	2.135	0.8464	1.8356	4.202	0.369
51			0.70	0.143	1.206	0.096	0.0796	3.06	4.715	2.171	0.8389	1.6537	4.315	0.322
52		30.0	0.60	0.141	1.114	0.0915	0.0821	3.01	4.817	2.195	0.8341	1.5429	4.389	0.293
53			0.50	0.124	1.009	0.088	0.0872	2.92	5.007	2.338	0.825	1.4276	4.528	0.260
54			0.40	0.102	1.229	Bad								
55			0.30	0.104	0.820	0.0825	0.1006	2.71	5.486	2.342	0.8015	1.2214	4.869	0.201
56			0.20	0.085	0.864	0.120	0.1389	2.29	6.611	2.571	0.7434	1.4743	5.608	0.1954
57	1.1	30.0	0.60	0.065	2.115	0.320	0.1513	2.18	6.993	2.644	0.7251	3.745	5.848	0.4643
58			1.00	0.131	2.021	0.205	0.1014	2.70	5.549	2.356	0.8000	3.023	4.913	0.4922
59			0.80	0.077	2.390	0.319	0.1335	2.33	6.540	2.557	0.7495	3.992	5.557	0.5384
60			0.70	0.070	2.226	0.303	0.1361	2.31	6.598	2.569	0.7464	3.758	5.600	0.5009
61			0.90	0.103	2.153	0.265	0.1231	2.435	6.240	2.498	0.7651	3.475	5.385	0.4938

TABLE II.

TEST: OH-9		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: SEPT. 18 & 20, 1973			
GROUP	CONFIGURATION	SCHD.		PARAMETERS/VALUES						NO. OF RUNS	MACH NUMBERS				
		$\alpha$	$\beta$	RE	P <sub>0</sub>	T <sub>0</sub>	TAP SURVEYED	COMMENTS							
1	29-0	30	0	.68	150	880	6		DATA NO GOOD		8.0				
2							5								
3							4								
4							3								
5							2								
6							1		DATA NO GOOD						
7							1								
8							6								
9		25					5								
10							4								
11							3								
12							2								
13							1								
14		15.5					3								
15							2								
16							1								
17		35					7								
18	V						6								

TEST RUN NUMBERS

20

1      7      13      19      25      31      37      43      49      55      61      67      75 76

COEFFICIENTS

11 (VAR 11)    12 (VAR 12)    13 (VAR 13)

$\alpha$  OR  $\beta$   
SCHEDULES

TABLE II. - Continued.

TEST: OH-9		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: SEPT. 18 & 20, 1973					
GROUP	CONFIGURATION	SCHD.		PARAMETERS/VALUES							NO. OF RUNS	MACH NUMBERS					
		$\alpha$	$\beta$	R <sub>N</sub>	P <sub>0</sub>	T <sub>0</sub>	TAPS	SURVEYED	COMMENTS								
19	29-0	35	0	.68	150	380		5					8.0				
20								4									
21								3									
22								2									
23		30						5	REPEAT OF RUN 2								
24				1.1	250			4									
25								5									
26								3									
27								2									
28							STATICS		DATA NO GOOD								
29				.68	150				DATA NO GOOD								
30				1.1	250												
31				.68	150												
32		35															
33		25															
34		15															
35		30						6									
36								10									

17131925313743495561677376

COEFFICIENTS

IDVAR (1)ICVAR (2)ICV

$\alpha$  OR  $\beta$

SCHEDULES

TEST RUN NUMBERS

TABLE II. - Continued.

TEST: OH-9		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: SEPT. 18 & 20, 1973			
GROUP	CONFIGURATION	SCHED.		PARAMETERS/VALUES							NO. OF RUNS	MACH NUMBERS			
		$\alpha$	$\beta$	RN	P <sub>0</sub>	T <sub>0</sub>	TAPS SURVEYED	COMMENTS							
37	29-0	30	0	68	150	880	9						8.0		
38							8								
39							7								
40		35					10								
41							9								
42							8								
43		25					10								
44							9								
45							8								
46							7								
47							6								
48		155					10								
49							9								
50							8								
51							7								
52							6								
53							5								
54	V	V	V	V	V	V	4						V		

1	7	13	19	25	31	37	43	49	55	61	67	73	76
---	---	----	----	----	----	----	----	----	----	----	----	----	----

$\alpha$ OR $\beta$ SCHEDULES		COEFFICIENTS		IDVAR (1)	IDVAR (2)	IDV
----------------------------------	--	--------------	--	-----------	-----------	-----

TEST RUN NUMBER

TABLE II. - Concluded.

[illegible]



TABLE III MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - B<sub>17</sub>GENERAL DESCRIPTION : Fuselage, 3 configuration, lightweight  
orbiterMODEL SCALE: 0.0175DRAWING NUMBER: VL70-000139

DIMENSIONS :	FULL SCALE	MODEL SCALE .
Length , In.	<u>1290.3</u>	<u>22.580</u>
Max Width , In.	<u>267.6</u>	<u>4.683</u>
Max Depth, In.	<u>244.5</u>	<u>4.279</u>
Fineness Ratio	<u>4.822</u>	<u>4.822</u>
Area - Ft <sup>2</sup>	<u></u>	<u></u>
Max. Cross-Sectional	<u>386.67</u>	<u>0.1184</u>
Planform	<u></u>	<u></u>
Wetted	<u></u>	<u></u>
Base	<u></u>	<u></u>

TABLE III (CONT'D)

MODEL COMPONENT : CANOPY - C<sub>7</sub>GENERAL DESCRIPTION : Configuration 3MODEL SCALE: 0.0175DRAWING NUMBER : VL 70 000139

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length ( $X_0=433$ to $X_0=578$ ), In.	<u>145.0</u>	<u>2.538</u>
Max Width	<u>          </u>	<u>          </u>
Max Depth	<u>          </u>	<u>          </u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>          </u>	<u>          </u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

TABLE III (CONT'D)

MODEL COMPONENT : BODY FLAP - F<sub>5</sub>

GENERAL DESCRIPTION : Configuration 3

MODEL SCALE: 0.0175

DRAWING NUMBER : VI 70-000139

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length , In.	<u>84.70</u>	<u>1.482</u>
Max Width , In.	<u>267.6</u>	<u>4.683</u>
Max Depth	<u>          </u>	<u>          </u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area - Ft <sup>2</sup>	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>          </u>	<u>          </u>
Planform	<u>142.5</u>	<u>0.044</u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>38.096</u>	<u>0.012</u>

TABLE III (CONT'D)

MODEL COMPONENT : OMS POD - M<sub>4</sub>GENERAL DESCRIPTION : Configuration 3NOTE: M<sub>4</sub> identical to M<sub>3</sub>, except intersection to fuselage.MODEL SCALE: 0.0175DRAWING NUMBER : VL70-000139

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length , In.	<u>346.0</u>	<u>6.055</u>
Max Width , In.	<u>108.0</u>	<u>0.890</u>
Max Depth , In.	<u>113.0</u>	<u>1.978</u>
Fineness Ratio	<u>                    </u>	<u>                    </u>
Area	<u>                    </u>	<u>                    </u>
Max. Cross-Sectional	<u>                    </u>	<u>                    </u>
Planform	<u>                    </u>	<u>                    </u>
Wetted	<u>                    </u>	<u>                    </u>
Base	<u>                    </u>	<u>                    </u>

TABLE III (CONT'D)

MODEL COMPONENT: VERTICAL - V<sub>7</sub>GENERAL DESCRIPTION: Centerline vertical tail, doublewedge air-  
foil with rounded leading edge.NOTE: Same as V<sub>5</sub>, but with manipulator housing removed.MODEL SCALE: 0.0175DRAWING NUMBER VL70-000139

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
TOTAL DATA		
Area (Theo) - Ft <sup>2</sup>		
Planform	<u>425.92</u>	<u>0.130</u>
Span (Theo) - In.	<u>315.72</u>	<u>7.454</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep-Back Angles, Degrees.		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>26.249</u>	<u>26.249</u>
0.25 Element Line	<u>41.130</u>	<u>41.130</u>
Chords:		
Root (Theo) WP	<u>268.50</u>	<u>4.699</u>
Tip (Theo) WP	<u>108.47</u>	<u>1.898</u>
MAC	<u>199.81</u>	<u>3.497</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>25.611</u>
W.P. of .25 MAC	<u>635.522</u>	<u>11.116</u>
B.L. of .25 MAC	<u>0.0</u>	<u>0.0</u>
Airfoil Section		
Leading Wedge angle - Deg.	<u>10.000</u>	<u>10.000</u>
Trailing Wedge Angle - Deg.	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius	<u>2.00</u>	<u>2.00</u>
Void Area	<u>13.17</u>	<u>0.004</u>
Blanketed Area	<u>0.0</u>	<u>0.0</u>

TABLE III - (CONL'D)

MODEL COMPONENT: WING-W<sub>103</sub>GENERAL DESCRIPTION: Configuration 3 orbiterNOTE: Same planform as W<sub>87</sub> except dihedral at trailing edge.MODEL SCALE: 0.0175

TEST NO.

DWG. NO. VL70-000139DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATAArea (Theo.)  $\text{Ft}^2$ 

Planform

Span (Theo) In.

Aspect Ratio

Rate of Taper

Taper Ratio

Dihedral Angle, degrees

Incidence Angle, degrees

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

Leading Edge

Trailing Edge

0.25 Element Line

Chords:

Root (Theo) B.P.O.O.

Tip, (Theo) B.P.

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

EXPOSED DATAArea (Theo)  $\text{Ft}^2$ 

Span, (Theo) In. BP108

Aspect Ratio

Taper Ratio

Chords

Root BP108

Tip  $1.00 \frac{b}{2}$ 

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

Airfoil Section (Rockwell Mod NASA)

XXXX-64

Root  $\frac{b}{2} =$ Tip  $\frac{b}{2} =$ 

Data for (1) of (2) Sides

Leading Edge Cuff

Planform Area  $\text{Ft}^2$ 

Leading Edge Intersects Fus M. L. @ Sta

Leading Edge Intersects Wing @ Sta

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# Notes:

1. Positive directions of the coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

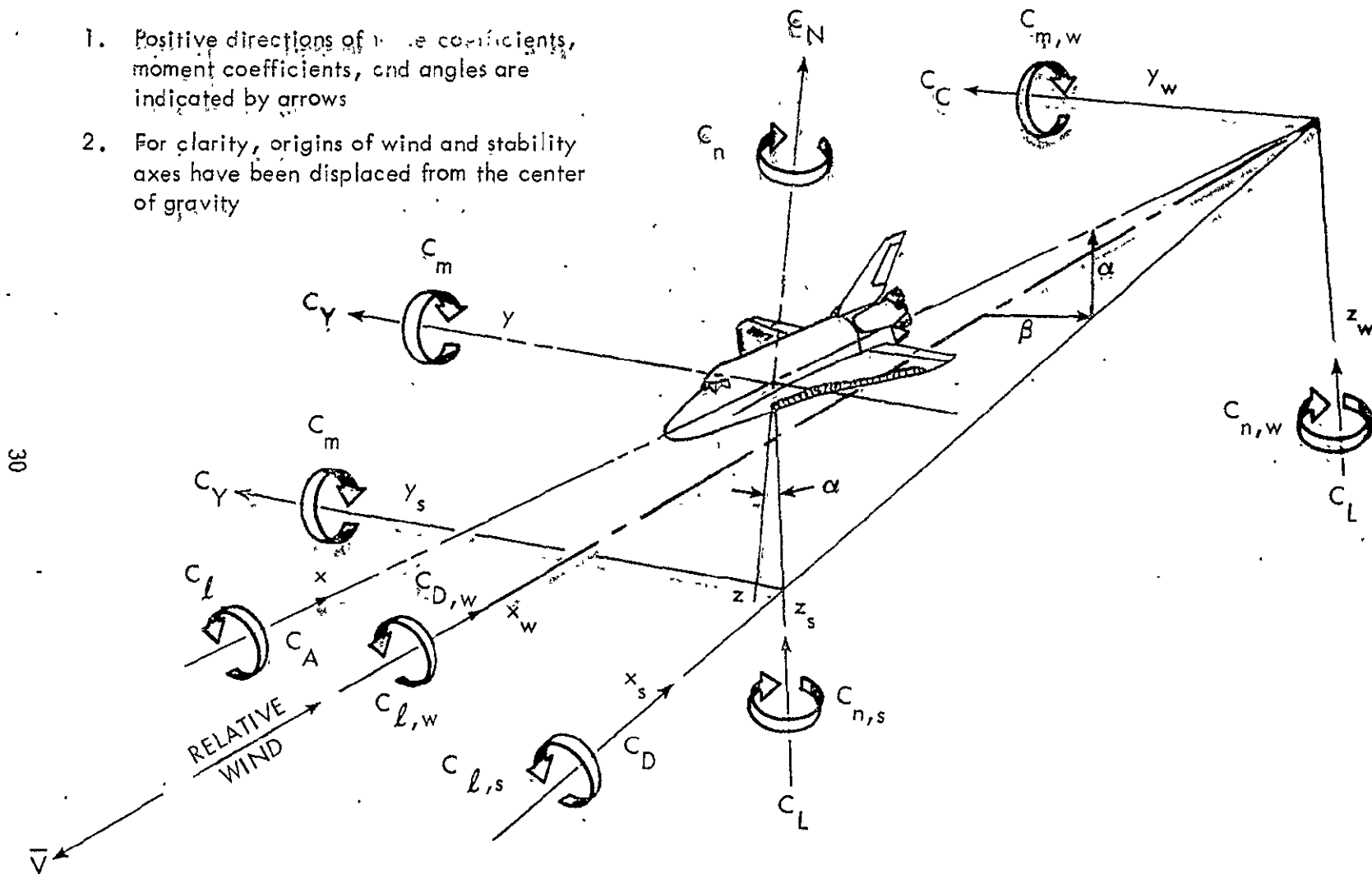
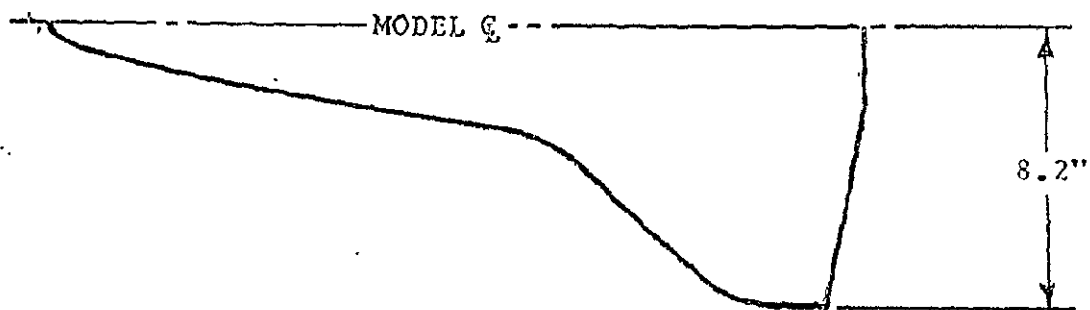
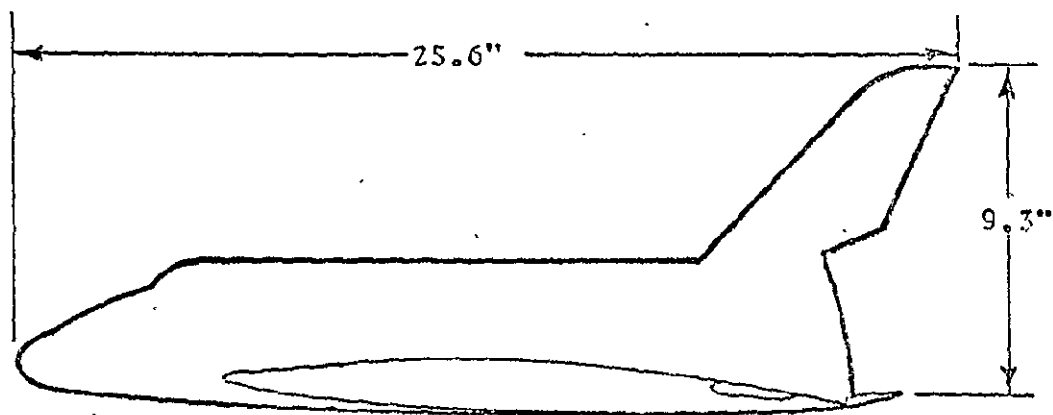


Figure 1. - Axis systems.



DIMENSIONS ARE  
NOMINAL VALUES



a. Space Shuttle Orbiter Model, 29-0

Figure 2. - Model sketches.

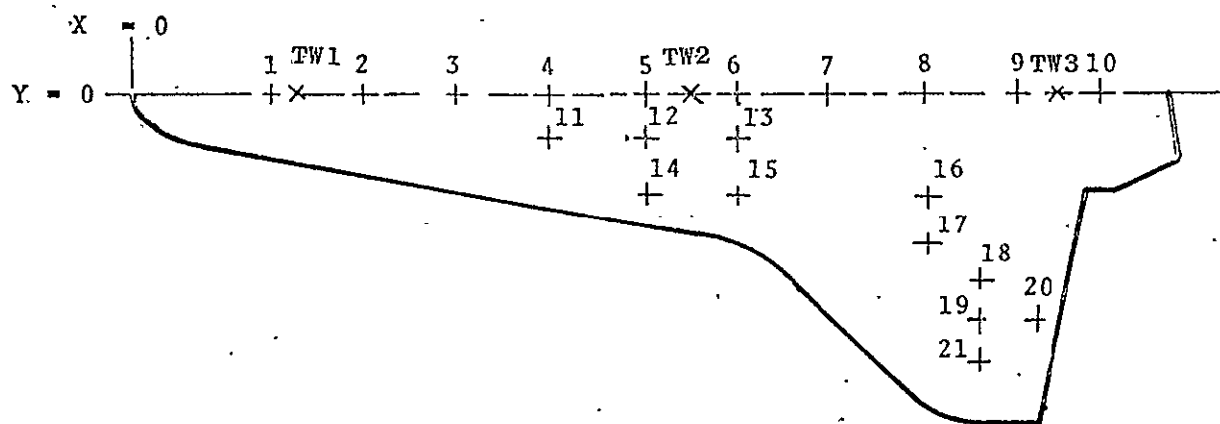


PRESSURE TAP NO.	X	Y	PRESSURE TAP NO.	X	Y
1	2.258	0	11	9.032	.875
2	4.516	0	12	11.290	.875
3	6.774	0	13	13.548	.875
4	9.032	0	14	11.290	2.049
5	11.290	0	15	13.548	2.049
6	13.548	0	16	18.064	2.049
7	15.806	0	17	18.064	3.278
8	18.064	0	18	19.145	4.918
9	20.322	0	19	19.023	6.147
10	22.580	0	20	20.061	6.147
			21	19.355	6.967

THERMOCOUPLE	X	Y
TW1	3.387	0
TW2	12.419	0
TW3	21.451	0

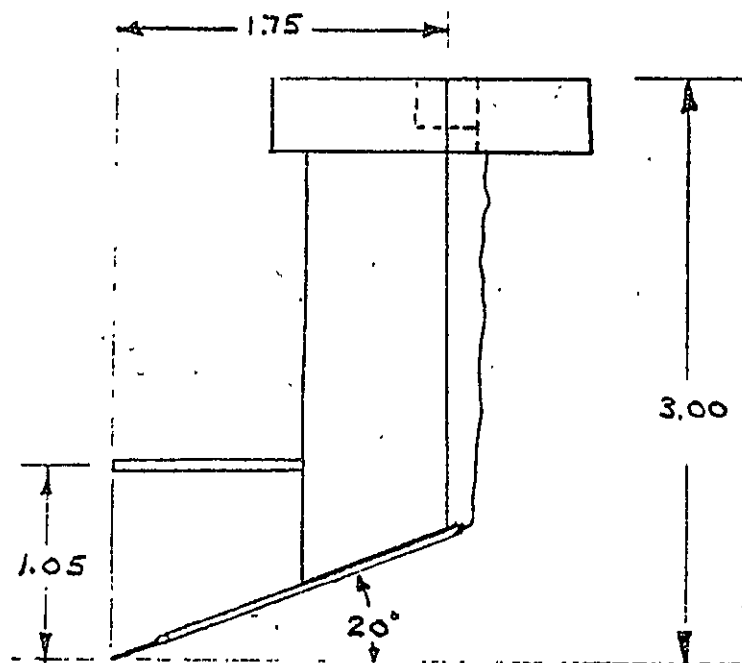
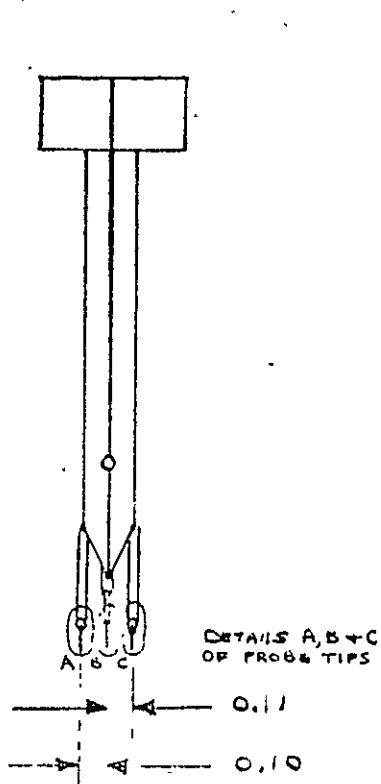
ALL DIMENSIONS IN INCHES.



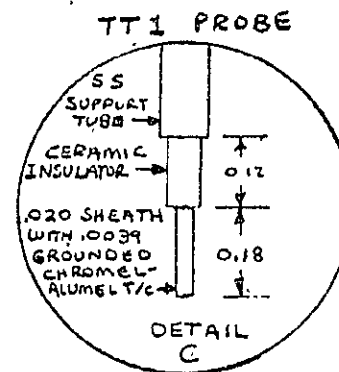
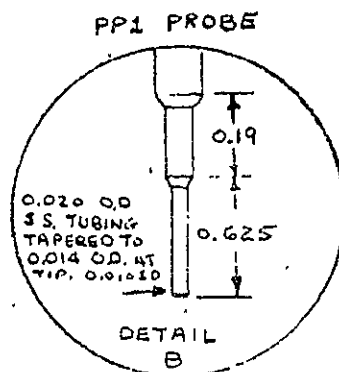
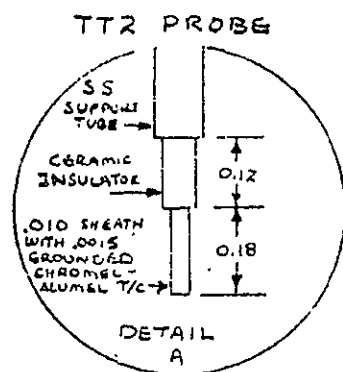
LOWER SURFACE, MODEL LEFT SIDE

b. Pressure Tap and Thermocouple Location

Figure 2. - Continued.



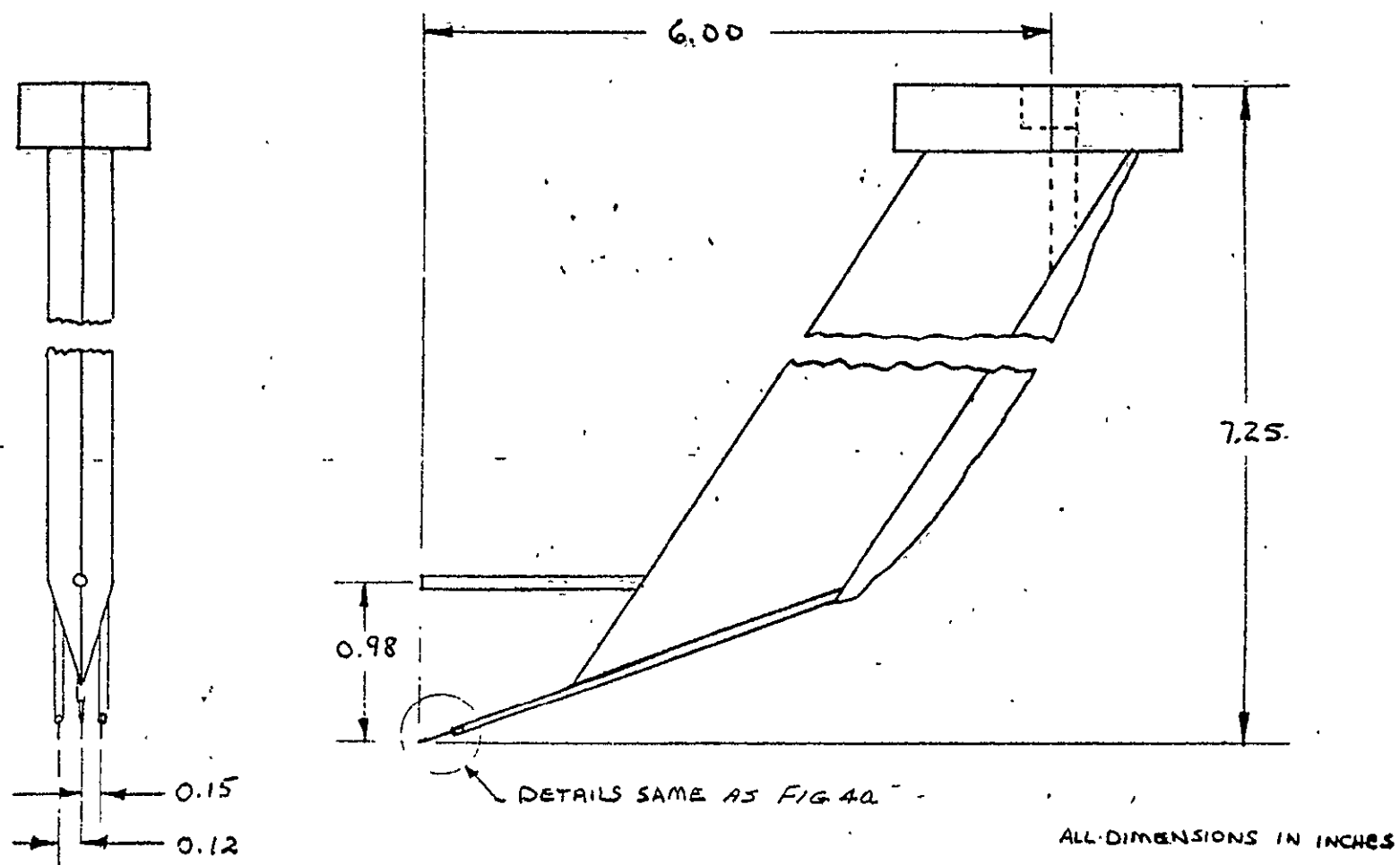
ALL DIMENSIONS IN INCHES.



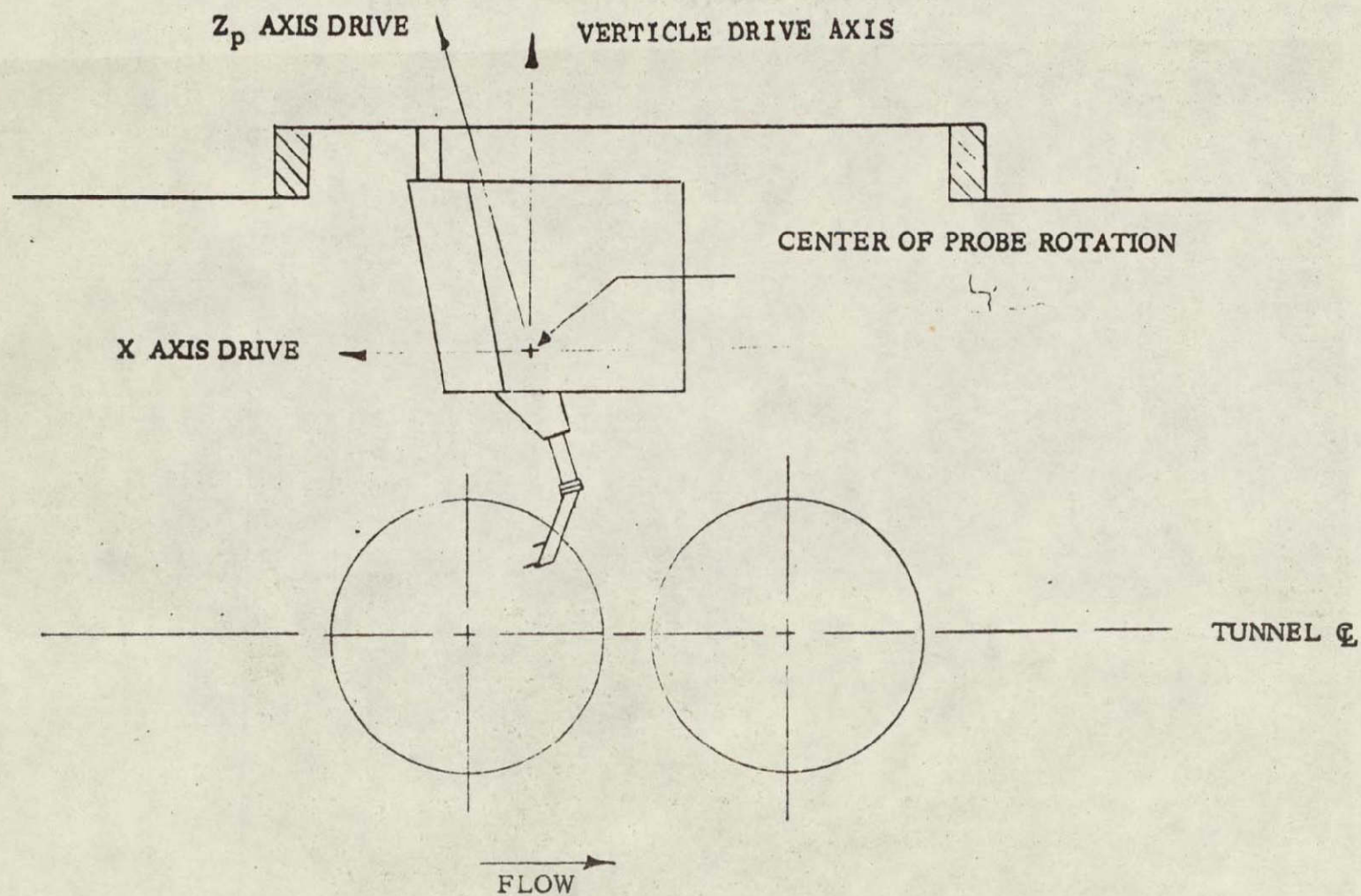
NOT TO SCALE

c. Short Probe Support

Figure 2. - Continued.



d. Long Probe Support  
Figure 2. - Continued.



e. VKF 4-Degree-of-Freedom Probe Drive Axis System

Figure 2. - Concluded.





Figure 3. - Model installation photograph.

APPENDIX  
TABULATED SOURCE DATA

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DATE = 9-18-73  
PROJECT NUMBER: VA353-218A  
ARO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/RI OH9 SHUTTLE TEST  
PAGE # 1

GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
3.	139	7.92	151.9	1314.	29.98	0.02	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
97.0	0.0166	1.349	0.729	3825.	0.462E-03	0.251E-05	0.704E 06	9.03	0.0	0.40	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
1.302	0.906	0.671	2.282	1.231	0.913	1.306	1221.	0.929	542.	0.412	522.	0.398	547.	0.416
1.284	0.905	0.671	2.264	1.230	0.912	1.288	1221.	0.930	544.	0.414	523.	0.398	550.	0.418
1.252	0.903	0.670	2.232	1.231	0.914	1.256	1221.	0.929	546.	0.416	524.	0.399	552.	0.420
1.219	0.902	0.669	2.199	1.229	0.912	1.223	1222.	0.930	548.	0.417	525.	0.400	554.	0.422
1.186	0.903	0.671	2.166	1.229	0.913	1.190	1222.	0.930	551.	0.419	526.	0.400	556.	0.423
1.153	0.904	0.672	2.133	1.228	0.913	1.157	1221.	0.929	553.	0.421	528.	0.401	558.	0.425
1.120	0.903	0.672	2.100	1.226	0.912	1.124	1222.	0.930	555.	0.423	529.	0.402	560.	0.426
1.086	0.904	0.673	2.066	1.225	0.912	1.090	1222.	0.930	558.	0.425	530.	0.403	562.	0.428
1.051	0.902	0.672	2.031	1.224	0.912	1.055	1222.	0.930	560.	0.426	531.	0.404	564.	0.429
1.017	0.900	0.671	1.997	1.225	0.913	1.021	1222.	0.930	563.	0.428	533.	0.405	566.	0.431
0.985	0.901	0.671	1.965	1.225	0.913	0.989	1222.	0.930	565.	0.430	534.	0.406	568.	0.432
0.955	0.902	0.672	1.935	1.224	0.913	0.959	1222.	0.930	568.	0.432	535.	0.407	570.	0.433
0.922	0.900	0.671	1.902	1.224	0.913	0.926	1222.	0.930	570.	0.434	536.	0.408	571.	0.435
0.890	0.916	0.683	1.870	1.224	0.913	0.894	1219.	0.928	573.	0.436	537.	0.409	573.	0.436
0.856	1.669	1.243	1.836	1.224	0.912	0.860	1234.	0.939	575.	0.438	538.	0.410	575.	0.438
0.764	4.605	3.433	1.744	1.225	0.914	0.768	1234.	0.939	606.	0.462	552.	0.420	607.	0.462
0.731	4.636	3.456	1.711	1.224	0.913	0.735	1234.	0.939	609.	0.463	552.	0.420	608.	0.463
0.698	4.684	3.492	1.678	1.223	0.912	0.702	1234.	0.939	611.	0.465	553.	0.421	610.	0.464
0.664	4.691	3.497	1.644	1.224	0.912	0.668	1235.	0.940	613.	0.466	553.	0.421	611.	0.465
0.630	4.665	3.478	1.610	1.225	0.914	0.634	1236.	0.940	615.	0.468	554.	0.422	610.	0.464
0.597	4.633	3.454	1.577	1.224	0.913	0.601	1236.	0.940	617.	0.470	554.	0.422	609.	0.464
0.563	4.603	3.433	1.543	1.222	0.912	0.567	1236.	0.940	619.	0.471	555.	0.422	608.	0.463
0.529	4.571	3.412	1.509	1.223	0.913	0.533	1236.	0.941	621.	0.473	555.	0.422	608.	0.462
0.496	4.522	3.378	1.476	1.223	0.914	0.500	1236.	0.941	623.	0.474	556.	0.423	609.	0.463
0.462	4.464	3.334	1.442	1.222	0.913	0.466	1237.	0.941	625.	0.476	556.	0.423	609.	0.464
0.429	4.402	3.290	1.409	1.222	0.914	0.433	1237.	0.942	627.	0.477	557.	0.424	610.	0.464
0.395	4.336	3.241	1.375	1.222	0.913	0.399	1238.	0.942	629.	0.478	557.	0.424	611.	0.465
			1.342	1.222	0.913	0.366	1239.	0.943	631.	0.480	558.	0.425	612.	0.466
			1.308	1.224	0.916	0.332	1239.	0.943	633.	0.481	559.	0.426	613.	0.467
			1.289	1.223	0.915	0.313	1240.	0.943	634.	0.483	561.	0.427	615.	0.468
0.302	4.087	3.057	1.282	1.223	0.915	0.306	1240.	0.944	636.	0.484	562.	0.428	616.	0.469
0.294	4.048	3.027	1.274	1.221	0.914	0.298	1239.	0.943	638.	0.485	563.	0.428	618.	0.470
0.285	4.016	3.006	1.265	1.221	0.914	0.289	1240.	0.943	640.	0.487	564.	0.429	619.	0.471
0.277	3.988	2.985	1.257	1.222	0.915	0.281	1241.	0.944	642.	0.488	565.	0.430	621.	0.472
0.269	3.962	2.965	1.249	1.221	0.914	0.273	1241.	0.944	643.	0.489	566.	0.430	622.	0.473
0.262	3.937	2.949	1.242	1.220	0.914	0.266	1241.	0.943	645.	0.491	567.	0.431	624.	0.474
0.258	3.914	2.933	1.238	1.221	0.915	0.262	1241.	0.943	647.	0.492	568.	0.432	625.	0.475
0.255	3.899	2.922	1.235	1.220	0.914	0.259	1242.	0.944	648.	0.493	569.	0.433	627.	0.476
0.251	3.884	2.913	1.231	1.219	0.914	0.255	1241.	0.944	650.	0.494	570.	0.434	628.	0.478
0.249	3.870	2.902	1.229	1.219	0.914	0.253	1241.	0.944	652.	0.496	571.	0.435	629.	0.479
0.246	3.858	2.897	1.226	1.218	0.915	0.250	1241.	0.944	653.	0.497	572.	0.435	631.	0.480
0.244	3.848	2.888	1.224	1.217	0.913	0.248	1241.	0.944	655.	0.498	573.	0.436	632.	0.481

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GROUP	MODEL	MACH NO.	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PRÉBEND	ROLL-MODEL	YAW					
3	139	7.92	149.9	1315	30.00	0.00	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.1	0.0164	1.332	0.720	3827.	0.456E-03	0.251E-05	0.694E 06	9.03	0.0	0.40	22.58.			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.242	3.840	2.884	1.222	1.218	0.915	0.246	1242.	0.944	657.	0.499	574.	0.437	633.	0.482
0.240	3.832	2.880	1.220	1.217	0.914	0.244	1242.	0.944	658.	0.500	575.	0.437	635.	0.483
0.239	3.825	2.874	1.219	1.216	0.914	0.243	1241.	0.944	660.	0.502	576.	0.438	636.	0.484
0.237	3.817	2.870	1.217	1.215	0.914	0.241	1242.	0.945	661.	0.503	577.	0.439	637.	0.485
0.234	3.811	2.864	1.214	1.217	0.915	0.238	1242.	0.945	663.	0.504	578.	0.439	638.	0.485
0.232	3.803	2.862	1.212	1.215	0.914	0.236	1242.	0.945	664.	0.505	579.	0.440	640.	0.486
0.228	3.790	2.850	1.208	1.215	0.914	0.232	1242.	0.945	666.	0.506	580.	0.441	641.	0.487
0.226	3.780	2.842	1.206	1.215	0.914	0.230	1243.	0.945	667.	0.507	581.	0.442	642.	0.488
0.224	3.771	2.839	1.204	1.215	0.915	0.228	1243.	0.945	669.	0.509	582.	0.442	643.	0.489
0.221	3.760	2.831	1.201	1.214	0.914	0.225	1243.	0.945	670.	0.510	583.	0.443	644.	0.490
0.219	3.752	2.825	1.199	1.215	0.915	0.223	1243.	0.945	672.	0.511	583.	0.444	645.	0.490
0.218	3.743	2.820	1.198	1.215	0.916	0.222	1243.	0.945	673.	0.512	584.	0.444	646.	0.491
0.216	3.734	2.816	1.196	1.213	0.915	0.220	1243.	0.945	674.	0.513	585.	0.445	647.	0.492
0.214	3.725	2.809	1.194	1.213	0.915	0.218	1243.	0.945	676.	0.514	586.	0.446	648.	0.493
0.212	3.717	2.803	1.192	1.211	0.913	0.216	1243.	0.945	677.	0.515	587.	0.446	649.	0.493
0.211	3.709	2.799	1.191	1.212	0.915	0.215	1244.	0.946	679.	0.516	588.	0.447	650.	0.494
0.209	3.702	2.795	1.189	1.211	0.914	0.213	1244.	0.946	680.	0.517	588.	0.447	651.	0.495
0.206	3.693	2.792	1.186	1.212	0.916	0.210	1244.	0.946	681.	0.518	589.	0.448	652.	0.496
0.204	3.683	2.784	1.184	1.210	0.915	0.208	1244.	0.945	683.	0.519	590.	0.448	653.	0.496
0.201	3.674	2.775	1.181	1.210	0.914	0.205	1244.	0.946	684.	0.520	591.	0.449	654.	0.497
0.199	3.663	2.767	1.179	1.210	0.914	0.203	1244.	0.946	685.	0.521	591.	0.449	655.	0.497
0.197	3.652	2.761	1.177	1.211	0.916	0.201	1245.	0.946	687.	0.522	592.	0.450	656.	0.498
0.196	3.643	2.754	1.176	1.211	0.916	0.200	1245.	0.946	688.	0.523	593.	0.451	656.	0.499
0.193	3.633	2.750	1.173	1.211	0.917	0.197	1245.	0.946	689.	0.524	594.	0.451	657.	0.500
0.191	3.621	2.741	1.171	1.210	0.916	0.195	1245.	0.946	690.	0.525	594.	0.452	658.	0.500
0.189	3.610	2.731	1.169	1.208	0.914	0.193	1245.	0.946	692.	0.526	595.	0.452	659.	0.501
0.186	3.597	2.721	1.166	1.208	0.914	0.190	1245.	0.946	693.	0.527	596.	0.453	660.	0.502
0.183	3.585	2.714	1.163	1.210	0.916	0.187	1246.	0.947	694.	0.527	597.	0.453	661.	0.502
0.180	3.568	2.703	1.160	1.209	0.916	0.184	1246.	0.947	695.	0.528	597.	0.454	662.	0.503
0.176	3.550	2.691	1.156	1.208	0.916	0.180	1246.	0.947	697.	0.529	598.	0.454	663.	0.504
0.173	3.531	2.675	1.153	1.207	0.915	0.177	1246.	0.947	698.	0.530	599.	0.455	664.	0.504
0.170	3.512	2.661	1.150	1.209	0.916	0.174	1247.	0.948	699.	0.531	599.	0.456	664.	0.505
0.167	3.491	2.646	1.147	1.208	0.916	0.171	1247.	0.948	700.	0.532	600.	0.456	665.	0.505
0.164	3.467	2.628	1.144	1.207	0.915	0.168	1247.	0.948	701.	0.533	601.	0.457	666.	0.506
0.160	3.443	2.612	1.140	1.207	0.916	0.164	1248.	0.948	702.	0.534	601.	0.457	667.	0.507
0.157	3.419	2.594	1.137	1.208	0.917	0.161	1248.	0.948	704.	0.535	602.	0.457	668.	0.507
0.155	3.392	2.574	1.135	1.205	0.915	0.159	1248.	0.948	705.	0.535	603.	0.458	668.	0.508
0.151	3.365	2.554	1.131	1.205	0.915	0.155	1249.	0.949	706.	0.536	604.	0.459	669.	0.508
0.148	3.338	2.537	1.128	1.205	0.916	0.152	1249.	0.949	707.	0.537	604.	0.459	670.	0.509
0.145	3.311	2.518	1.125	1.205	0.917	0.149	1249.	0.949	708.	0.538	605.	0.460	670.	0.509
0.142	3.286	2.499	1.122	1.206	0.918	0.146	1250.	0.950	709.	0.539	605.	0.460	671.	0.510
0.139	3.260	2.482	1.119	1.205	0.917	0.143	1250.	0.950	710.	0.540	606.	0.460	672.	0.510



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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
3.	139	7.92	148.0	1316.	30.00	0.00	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.2	0.0162	1.314	0.710	3828.	0.449E-03	0.252E-05	0.684E 06	9.03	0.0	0.40	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.138	3.237	2.464	1.118	1.204	0.917	0.142	1250.	0.950	711.	0.540	607.	0.461	672.	0.511
0.135	3.212	2.446	1.115	1.204	0.917	0.139	1250.	0.950	712.	0.541	607.	0.462	673.	0.511
0.132	3.186	2.426	1.112	1.203	0.917	0.136	1251.	0.950	713.	0.542	608.	0.462	674.	0.512
0.129	3.158	2.405	1.109	1.203	0.917	0.133	1251.	0.951	715.	0.543	609.	0.463	674.	0.512
0.128	3.133	2.388	1.108	1.204	0.918	0.132	1252.	0.951	716.	0.544	609.	0.463	675.	0.513
0.125	3.106	2.369	1.105	1.202	0.917	0.129	1251.	0.951	717.	0.544	610.	0.464	675.	0.513
0.122	3.076	2.348	1.102	1.201	0.916	0.126	1252.	0.951	718.	0.545	611.	0.464	675.	0.513
0.119	3.053	2.330	1.099	1.203	0.918	0.123	1252.	0.951	719.	0.546	612.	0.465	676.	0.514
0.117	3.025	2.308	1.097	1.202	0.918	0.121	1252.	0.951	720.	0.547	612.	0.465	676.	0.514
0.115	2.999	2.289	1.095	1.200	0.916	0.119	1252.	0.951	721.	0.548	613.	0.466	677.	0.514
0.112	2.974	2.271	1.092	1.202	0.918	0.116	1252.	0.952	722.	0.548	614.	0.467	677.	0.515
0.110	2.948	2.251	1.090	1.202	0.918	0.114	1253.	0.952	723.	0.549	615.	0.467	678.	0.515
0.107	2.919	2.229	1.087	1.200	0.916	0.111	1253.	0.952	724.	0.550	615.	0.468	678.	0.515
0.104	2.891	2.208	1.084	1.203	0.919	0.108	1254.	0.953	725.	0.551	616.	0.468	679.	0.516
0.101	2.863	2.185	1.081	1.205	0.920	0.105	1254.	0.953	726.	0.551	617.	0.469	679.	0.516
0.097	2.832	2.161	1.077	1.204	0.919	0.101	1254.	0.953	727.	0.552	618.	0.469	680.	0.516
0.095	2.804	2.140	1.075	1.206	0.921	0.099	1254.	0.953	728.	0.553	618.	0.470	680.	0.517
0.092	2.774	2.114	1.072	1.207	0.920	0.096	1255.	0.953	728.	0.553	619.	0.470	680.	0.517
0.090	2.743	2.089	1.070	1.206	0.918	0.094	1255.	0.953	729.	0.554	620.	0.471	681.	0.517
0.087	2.717	2.068	1.067	1.208	0.920	0.091	1255.	0.953	730.	0.555	621.	0.471	681.	0.517
0.084	2.686	2.042	1.064	1.209	0.919	0.088	1256.	0.953	731.	0.555	621.	0.472	682.	0.518
0.081	2.652	2.014	1.061	1.209	0.916	0.085	1256.	0.954	732.	0.556	622.	0.472	682.	0.518
0.079	2.624	1.992	1.059	1.211	0.920	0.083	1256.	0.954	733.	0.557	623.	0.473	683.	0.518
0.076	2.593	1.969	1.056	1.213	0.921	0.080	1256.	0.954	734.	0.557	624.	0.474	683.	0.519
0.073	2.560	1.942	1.053	1.214	0.921	0.077	1256.	0.954	735.	0.558	624.	0.474	684.	0.519
0.070	2.522	1.912	1.050	1.212	0.919	0.074	1256.	0.954	736.	0.559	625.	0.475	684.	0.519
0.068	2.484	1.883	1.048	1.212	0.919	0.072	1256.	0.953	737.	0.559	626.	0.475	684.	0.520
0.065	2.444	1.851	1.045	1.212	0.918	0.069	1255.	0.953	738.	0.560	627.	0.476	685.	0.520
0.062	2.402	1.819	1.042	1.215	0.920	0.066	1254.	0.951	739.	0.560	627.	0.476	685.	0.520
0.059	2.354	1.782	1.039	1.218	0.922	0.063	1251.	0.949	740.	0.561	628.	0.477	686.	0.520
0.056	2.300	1.739	1.036	1.215	0.918	0.060	1247.	0.946	740.	0.562	629.	0.477	686.	0.521
0.053	2.242	1.695	1.033	1.217	0.920	0.057	1242.	0.943	741.	0.562	630.	0.478	687.	0.521
0.050	2.178	1.646	1.030	1.216	0.919	0.054	1235.	0.937	742.	0.563	630.	0.478	687.	0.521
0.047	2.102	1.587	1.027	1.218	0.920	0.051	1223.	0.928	743.	0.564	631.	0.479	687.	0.522
0.042	2.008	1.515	1.022	1.219	0.920	0.046	1206.	0.915	744.	0.564	632.	0.480	688.	0.522
0.039	1.911	1.442	1.019	1.221	0.922	0.043	1190.	0.903	745.	0.565	633.	0.480	688.	0.522
0.035	1.813	1.366	1.015	1.220	0.920	0.039	1171.	0.889	746.	0.566	634.	0.481	689.	0.522
0.033	1.713	1.290	1.013	1.221	0.920	0.037	1151.	0.873	746.	0.566	634.	0.481	689.	0.523
0.030	1.613	1.215	1.010	1.223	0.922	0.034	1130.	0.858	747.	0.567	635.	0.482	689.	0.523
0.027	1.512	1.138	1.007	1.223	0.921	0.031	1104.	0.838	748.	0.568	636.	0.482	690.	0.523
0.024	1.413	1.064	1.004	1.223	0.921	0.028	1075.	0.816	749.	0.568	637.	0.483	690.	0.524
0.020	1.318	0.992	1.000	1.222	0.920	0.024	1043.	0.791	750.	0.569	637.	0.484	691.	0.524

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
3.	139	7.92	149.6	1318.	30.00	0.00	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	HMO-INF	MU-INF	RE/FT	X	Y					
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)					
97.3	0.0164	1.329	0.718	3831.	0.454E-03	0.252E-05	0.690E 06	9.03	0.0					
X/L	L													
0.40	22.58													
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)	(DEG R)	(DEG R)		(DEG R)		(DEG R)	
0.016	1.231	0.927	0.996	1.222	0.920	0.020	1007.	0.764	751.	0.570	638.	0.484	691.	0.524
0.012	1.149	0.864	0.992	1.221	0.919	0.016	967.	0.733	751.	0.570	639.	0.485	691.	0.525
0.009	1.075	0.809	0.989	1.222	0.920	0.013	927.	0.703	752.	0.571	640.	0.485	692.	0.525
0.007	1.006	0.757	0.967	1.219	0.918	0.011	892.	0.677	753.	0.571	641.	0.486	692.	0.525
0.007	0.704	0.531	0.987	1.218	0.920	0.011	885.	0.671	760.	0.576	646.	0.490	695.	0.527

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
4	139	7.92	151.7	1335.	29.98	0.02	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	WMO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.6	0.0166	1.348	0.728	3856.	0.454E-03	0.255E-05	0.686E 06	6.77	0.0	0.30	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
1.076	0.925	0.686	2.056	1.234	0.916	1.080	1246.	0.933	553.	0.414	523.	0.392	558.	0.418
1.054	0.921	0.684	2.034	1.232	0.915	1.058	1247.	0.934	556.	0.416	524.	0.393	562.	0.421
1.019	0.920	0.684	1.999	1.232	0.916	1.023	1246.	0.934	558.	0.418	526.	0.394	565.	0.423
0.988	0.919	0.683	1.968	1.232	0.916	0.992	1247.	0.934	560.	0.420	528.	0.395	568.	0.425
0.954	0.917	0.682	1.934	1.230	0.915	0.958	1247.	0.934	563.	0.421	531.	0.397	570.	0.427
0.920	0.916	0.682	1.900	1.231	0.916	0.924	1247.	0.934	565.	0.423	533.	0.399	572.	0.429
0.886	0.914	0.681	1.866	1.230	0.916	0.890	1247.	0.934	568.	0.425	536.	0.402	575.	0.431
0.851	0.911	0.678	1.831	1.228	0.915	0.855	1247.	0.934	570.	0.427	539.	0.404	578.	0.433
0.816	0.912	0.680	1.796	1.230	0.917	0.820	1247.	0.934	573.	0.429	542.	0.406	581.	0.435
0.782	1.056	0.788	1.762	1.228	0.916	0.786	1250.	0.936	575.	0.431	544.	0.408	583.	0.437
0.749	2.167	1.616	1.729	1.226	0.915	0.753	1261.	0.944	578.	0.433	546.	0.409	585.	0.438
0.719	4.403	3.320	1.699	1.214	0.915	0.723	1261.	0.944	612.	0.458	572.	0.428	612.	0.458
0.685	4.379	3.302	1.665	1.214	0.916	0.689	1261.	0.944	614.	0.460	574.	0.429	613.	0.459
0.650	4.332	3.271	1.630	1.214	0.916	0.654	1261.	0.944	617.	0.461	575.	0.430	614.	0.460
0.615	4.274	3.227	1.595	1.212	0.915	0.619	1261.	0.944	619.	0.463	576.	0.431	615.	0.461
0.581	4.201	3.176	1.561	1.212	0.917	0.585	1261.	0.944	621.	0.465	576.	0.431	616.	0.461
0.546	4.115	3.113	1.526	1.212	0.917	0.550	1262.	0.945	623.	0.466	577.	0.432	618.	0.463
0.512	4.078	3.087	1.492	1.212	0.918	0.516	1262.	0.945	625.	0.468	577.	0.432	621.	0.465
0.477	4.052	3.069	1.457	1.212	0.918	0.481	1263.	0.945	627.	0.470	578.	0.433	623.	0.466
0.443	4.012	3.041	1.423	1.212	0.919	0.447	1263.	0.946	630.	0.471	579.	0.433	625.	0.468
0.408	3.959	2.999	1.388	1.213	0.919	0.412	1264.	0.946	632.	0.473	579.	0.434	627.	0.469
0.374	3.899	2.956	1.354	1.212	0.919	0.378	1264.	0.946	634.	0.474	580.	0.434	629.	0.471
			1.319	1.214	0.920	0.343	1266.	0.947	636.	0.476	580.	0.434	630.	0.472
			1.245	1.214	0.920	0.319	1265.	0.947	638.	0.477	580.	0.434	632.	0.473
			1.286	1.215	0.920	0.310	1266.	0.947	640.	0.478	581.	0.434	633.	0.474
			1.280	1.215	0.920	0.304	1266.	0.947	642.	0.480	581.	0.435	634.	0.474
0.297	3.674	2.780	1.277	1.215	0.919	0.301	1266.	0.947	644.	0.481	582.	0.435	636.	0.475
0.294	3.660	2.769	1.274	1.215	0.919	0.298	1267.	0.947	645.	0.483	582.	0.435	637.	0.476
0.291	3.649	2.761	1.271	1.215	0.920	0.295	1266.	0.947	647.	0.484	582.	0.435	638.	0.477
0.288	3.640	2.756	1.268	1.216	0.921	0.292	1266.	0.947	649.	0.486	583.	0.436	639.	0.478
0.285	3.630	2.748	1.265	1.216	0.921	0.289	1267.	0.948	651.	0.487	583.	0.436	641.	0.479
0.282	3.623	2.741	1.262	1.215	0.919	0.286	1267.	0.947	653.	0.488	584.	0.437	642.	0.480
0.280	3.616	2.736	1.260	1.216	0.920	0.284	1267.	0.948	655.	0.490	584.	0.437	643.	0.481
0.277	3.607	2.731	1.257	1.215	0.920	0.281	1267.	0.947	656.	0.491	585.	0.437	644.	0.482
0.274	3.600	2.725	1.254	1.216	0.921	0.278	1267.	0.947	658.	0.492	585.	0.438	646.	0.483
0.271	3.592	2.719	1.251	1.215	0.920	0.275	1267.	0.947	660.	0.494	586.	0.436	647.	0.484
0.269	3.584	2.715	1.249	1.214	0.920	0.273	1267.	0.948	662.	0.495	586.	0.439	648.	0.485
0.266	3.576	2.709	1.246	1.213	0.919	0.270	1267.	0.947	663.	0.496	587.	0.439	649.	0.486
0.265	3.567	2.702	1.245	1.213	0.919	0.269	1267.	0.948	665.	0.497	588.	0.440	651.	0.487
0.263	3.560	2.698	1.243	1.212	0.919	0.267	1267.	0.948	667.	0.499	588.	0.440	652.	0.488
0.261	3.555	2.695	1.241	1.213	0.920	0.265	1267.	0.948	668.	0.500	589.	0.440	653.	0.489
0.258	3.546	2.690	1.238	1.210	0.918	0.262	1267.	0.947	670.	0.501	589.	0.441	654.	0.489

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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
4.	139	7.92	148.5	1338.	30.00	0.00	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
58.8	0.0162	1.318	0.713	3860.	0.443E-03	0.256E-05	0.669E 06	6.77	0.0	0.30	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.255	3.538	2.684	1.235	1.211	0.919	0.259	1268.	0.948	671.	0.502	590.	0.441	656.	0.490
0.253	3.530	2.680	1.233	1.211	0.920	0.257	1268.	0.948	673.	0.503	591.	0.441	657.	0.491
0.250	3.520	2.673	1.230	1.210	0.919	0.254	1268.	0.948	675.	0.504	591.	0.442	658.	0.492
0.246	3.509	2.665	1.226	1.210	0.919	0.250	1269.	0.948	676.	0.505	592.	0.443	660.	0.493
0.244	3.499	2.660	1.224	1.210	0.920	0.248	1268.	0.948	678.	0.507	593.	0.443	661.	0.494
0.241	3.487	2.652	1.221	1.208	0.919	0.245	1269.	0.948	679.	0.508	593.	0.444	662.	0.495
0.238	3.476	2.642	1.218	1.207	0.918	0.242	1269.	0.948	681.	0.509	594.	0.444	664.	0.496
0.236	3.464	2.636	1.216	1.207	0.919	0.240	1269.	0.948	682.	0.510	595.	0.445	665.	0.497
0.233	3.454	2.631	1.213	1.208	0.920	0.237	1269.	0.949	684.	0.511	596.	0.445	666.	0.498
0.230	3.443	2.622	1.210	1.207	0.920	0.234	1269.	0.949	685.	0.512	596.	0.446	667.	0.499
0.228	3.428	2.612	1.208	1.205	0.918	0.232	1270.	0.949	687.	0.513	597.	0.446	669.	0.500
0.226	3.418	2.605	1.206	1.206	0.919	0.230	1270.	0.949	688.	0.514	598.	0.447	670.	0.501
0.222	3.404	2.596	1.202	1.206	0.920	0.226	1270.	0.949	689.	0.515	598.	0.447	671.	0.502
0.218	3.389	2.586	1.198	1.205	0.920	0.222	1270.	0.949	691.	0.516	599.	0.448	673.	0.503
0.215	3.374	2.577	1.195	1.204	0.920	0.219	1270.	0.949	692.	0.517	600.	0.448	674.	0.504
0.211	3.355	2.562	1.191	1.204	0.919	0.215	1271.	0.950	693.	0.518	600.	0.449	675.	0.505
0.208	3.339	2.552	1.188	1.204	0.920	0.212	1271.	0.950	695.	0.519	601.	0.449	677.	0.506
0.204	3.323	2.538	1.184	1.204	0.920	0.208	1271.	0.950	696.	0.520	602.	0.450	678.	0.507
0.200	3.303	2.523	1.180	1.206	0.921	0.204	1272.	0.951	698.	0.521	602.	0.450	679.	0.508
0.197	3.284	2.506	1.177	1.206	0.921	0.201	1272.	0.951	699.	0.522	603.	0.451	681.	0.509
0.194	3.263	2.489	1.174	1.206	0.920	0.198	1272.	0.951	700.	0.523	604.	0.451	682.	0.510
0.192	3.247	2.476	1.172	1.209	0.922	0.196	1273.	0.951	701.	0.524	604.	0.452	683.	0.511
0.188	3.228	2.458	1.168	1.209	0.921	0.192	1273.	0.951	703.	0.525	605.	0.452	685.	0.512
0.186	3.210	2.443	1.166	1.209	0.920	0.190	1273.	0.951	704.	0.526	606.	0.453	686.	0.513
0.182	3.188	2.427	1.162	1.207	0.919	0.186	1273.	0.951	705.	0.527	607.	0.453	687.	0.514
0.179	3.168	2.411	1.159	1.210	0.921	0.183	1274.	0.952	707.	0.528	607.	0.454	689.	0.515
0.175	3.147	2.393	1.155	1.210	0.921	0.179	1274.	0.952	708.	0.529	608.	0.454	690.	0.516
0.172	3.122	2.373	1.152	1.210	0.920	0.176	1274.	0.952	709.	0.530	608.	0.455	691.	0.517
0.169	3.100	2.356	1.149	1.210	0.920	0.173	1275.	0.953	710.	0.531	609.	0.455	693.	0.518
0.165	3.076	2.338	1.145	1.210	0.920	0.169	1275.	0.953	711.	0.532	610.	0.456	694.	0.519
0.162	3.053	2.320	1.142	1.211	0.921	0.166	1275.	0.952	713.	0.532	610.	0.456	695.	0.519
0.159	3.028	2.301	1.139	1.210	0.920	0.163	1276.	0.953	714.	0.533	611.	0.456	697.	0.520
0.155	3.003	2.281	1.135	1.212	0.921	0.159	1276.	0.953	715.	0.534	612.	0.457	698.	0.521
0.152	2.978	2.262	1.132	1.211	0.920	0.156	1276.	0.953	716.	0.535	612.	0.457	699.	0.522
0.149	2.951	2.243	1.129	1.210	0.920	0.153	1277.	0.953	717.	0.536	613.	0.458	700.	0.523
0.145	2.927	2.224	1.125	1.211	0.921	0.149	1277.	0.954	718.	0.537	614.	0.458	702.	0.524
0.141	2.901	2.203	1.121	1.211	0.920	0.145	1277.	0.954	719.	0.537	614.	0.459	703.	0.525
0.138	2.874	2.184	1.118	1.211	0.921	0.142	1277.	0.954	721.	0.538	615.	0.459	704.	0.526
0.135	2.846	2.161	1.115	1.211	0.920	0.139	1278.	0.954	722.	0.539	616.	0.460	705.	0.527
0.132	2.818	2.140	1.112	1.210	0.919	0.136	1278.	0.955	723.	0.540	616.	0.460	706.	0.528
0.129	2.793	2.121	1.109	1.210	0.919	0.133	1279.	0.955	724.	0.541	617.	0.461	707.	0.528
0.126	2.767	2.103	1.106	1.211	0.921	0.130	1279.	0.955	725.	0.541	618.	0.461	709.	0.529

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ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO.	PO(PSIA)	TO( DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
4.	139	7.92	148.2	1339.	30.00	0.00	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	PU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.9	0.0162	1.316	0.711	3861.	0.442E-03	0.256E-05	0.667E 06	6.77	0.0	0.30	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2- (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
0.122	2.740	2.082	1.102	1.210	0.920	0.126	1279.	0.955	726.	0.542	618.	0.462	710.	0.530
0.119	2.711	2.060	1.099	1.210	0.920	0.123	1279.	0.955	727.	0.543	619.	0.462	711.	0.531
0.116	2.682	2.040	1.096	1.209	0.920	0.120	1279.	0.955	728.	0.544	620.	0.463	712.	0.532
0.113	2.658	2.022	1.093	1.211	0.921	0.117	1280.	0.956	729.	0.545	620.	0.463	713.	0.532
0.110	2.632	2.002	1.090	1.210	0.921	0.114	1281.	0.956	730.	0.545	621.	0.464	714.	0.533
0.107	2.607	1.983	1.087	1.209	0.920	0.111	1281.	0.956	731.	0.546	622.	0.464	715.	0.534
0.104	2.581	1.963	1.084	1.209	0.920	0.108	1281.	0.957	732.	0.547	623.	0.465	716.	0.535
0.101	2.556	1.946	1.081	1.207	0.919	0.105	1281.	0.957	733.	0.548	623.	0.466	717.	0.535
0.098	2.532	1.926	1.078	1.209	0.920	0.102	1282.	0.958	734.	0.549	624.	0.466	718.	0.536
0.095	2.510	1.911	1.075	1.210	0.921	0.099	1282.	0.958	735.	0.549	625.	0.467	719.	0.537
0.092	2.486	1.892	1.072	1.208	0.920	0.096	1283.	0.958	736.	0.550	626.	0.467	720.	0.537
0.090	2.462	1.874	1.070	1.208	0.920	0.094	1284.	0.959	737.	0.551	627.	0.468	721.	0.538
0.087	2.439	1.857	1.067	1.208	0.920	0.091	1284.	0.959	738.	0.551	627.	0.468	721.	0.539
0.084	2.416	1.842	1.064	1.208	0.921	0.088	1285.	0.959	739.	0.552	628.	0.469	722.	0.539
0.082	2.392	1.822	1.062	1.206	0.919	0.086	1285.	0.960	740.	0.553	629.	0.470	723.	0.540
0.079	2.369	1.804	1.059	1.207	0.920	0.083	1286.	0.960	741.	0.554	630.	0.470	724.	0.541
0.076	2.344	1.787	1.056	1.206	0.919	0.080	1286.	0.960	742.	0.554	630.	0.471	725.	0.541
0.073	2.315	1.764	1.053	1.205	0.919	0.077	1286.	0.960	743.	0.555	631.	0.471	726.	0.542
0.070	2.286	1.744	1.050	1.206	0.920	0.074	1286.	0.960	744.	0.555	632.	0.472	727.	0.542
0.067	2.252	1.719	1.047	1.207	0.921	0.071	1286.	0.960	745.	0.556	633.	0.472	727.	0.543
0.063	2.214	1.690	1.043	1.205	0.920	0.067	1285.	0.959	746.	0.557	634.	0.473	728.	0.543
0.060	2.173	1.658	1.040	1.205	0.920	0.064	1283.	0.958	747.	0.557	635.	0.474	729.	0.544
0.056	2.127	1.623	1.036	1.205	0.920	0.060	1280.	0.955	748.	0.558	635.	0.474	730.	0.545
0.052	2.075	1.584	1.032	1.205	0.920	0.056	1274.	0.951	749.	0.559	636.	0.475	731.	0.545
0.048	2.011	1.536	1.028	1.205	0.921	0.052	1264.	0.943	750.	0.559	637.	0.476	731.	0.546
0.043	1.933	1.476	1.023	1.204	0.920	0.047	1249.	0.932	751.	0.560	638.	0.476	732.	0.546
0.038	1.840	1.405	1.018	1.204	0.920	0.042	1227.	0.915	751.	0.561	639.	0.477	733.	0.547
0.034	1.739	1.328	1.014	1.203	0.919	0.038	1201.	0.897	752.	0.561	640.	0.478	734.	0.548
0.030	1.631	1.245	1.010	1.204	0.920	0.034	1173.	0.875	753.	0.562	641.	0.478	735.	0.548
0.027	1.523	1.163	1.007	1.204	0.920	0.031	1145.	0.855	754.	0.563	641.	0.479	736.	0.549
0.022	1.412	1.079	1.002	1.205	0.921	0.026	1107.	0.826	755.	0.563	642.	0.479	736.	0.550
0.018	1.307	0.999	0.998	1.203	0.920	0.022	1056.	0.788	756.	0.564	643.	0.480	737.	0.550
0.014	1.210	0.924	0.994	1.204	0.920	0.018	1011.	0.754	757.	0.565	644.	0.481	738.	0.551
0.009	1.125	0.859	0.989	1.205	0.921	0.013	965.	0.720	757.	0.565	645.	0.481	739.	0.551
0.007	1.052	0.804	0.987	1.205	0.921	0.011	924.	0.690	758.	0.566	645.	0.482	740.	0.552
0.007	0.909	0.694	0.987	1.206	0.921	0.011	914.	0.682	760.	0.567	647.	0.483	742.	0.553

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW						
5.	139	7.92	151.4	1350.	29.98	0.02	30.00	180.00	0						
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	MHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)				
99.7	0.0166	1.345	0.727	3877.	0.448E-03	0.258E-05	0.673E 06	4.52	0.0	0.20	22.58				
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO	
1.107	0.904	0.672	2.087	1.235	0.919	1.111	1262.	0.935	546.	0.405	538.	0.398	573.	0.425	
1.085	0.905	0.673	2.065	1.234	0.918	1.089	1262.	0.935	549.	0.406	541.	0.401	576.	0.427	
1.052	0.904	0.673	2.032	1.233	0.918	1.056	1262.	0.935	551.	0.408	544.	0.403	579.	0.429	
1.021	0.901	0.671	2.001	1.233	0.919	1.025	1263.	0.935	554.	0.410	548.	0.406	581.	0.431	
0.988	0.903	0.673	1.968	1.235	0.920	0.992	1263.	0.936	556.	0.412	551.	0.408	584.	0.432	
0.955	0.904	0.673	1.935	1.235	0.920	0.959	1263.	0.936	559.	0.414	554.	0.410	586.	0.434	
0.923	0.902	0.672	1.903	1.236	0.921	0.927	1263.	0.936	561.	0.416	557.	0.412	588.	0.435	
0.889	0.903	0.671	1.869	1.236	0.919	0.893	1263.	0.936	564.	0.418	558.	0.413	590.	0.437	
0.855	0.904	0.672	1.835	1.239	0.922	0.859	1263.	0.936	566.	0.420	560.	0.415	592.	0.438	
0.822	0.903	0.671	1.802	1.237	0.920	0.826	1263.	0.936	569.	0.421	565.	0.418	593.	0.440	
0.788	0.904	0.671	1.768	1.238	0.920	0.792	1264.	0.937	572.	0.423	569.	0.421	595.	0.441	
0.755	0.905	0.672	1.735	1.238	0.920	0.759	1263.	0.936	574.	0.425	571.	0.423	597.	0.442	
0.721	0.905	0.672	1.701	1.237	0.919	0.725	1263.	0.935	577.	0.427	574.	0.425	598.	0.443	
0.687	0.905	0.672	1.667	1.239	0.921	0.691	1263.	0.936	580.	0.429	575.	0.426	600.	0.444	
0.653	0.906	0.673	1.633	1.237	0.919	0.657	1260.	0.933	582.	0.431	578.	0.428	601.	0.445	
0.620	1.348	1.002	1.600	1.238	0.920	0.624	1278.	0.947	585.	0.433	581.	0.431	602.	0.446	
0.606	2.450	1.821	1.586	1.236	0.919	0.610	1281.	0.949	587.	0.435	584.	0.432	603.	0.447	
0.511	4.146	3.099	1.441	1.227	0.917	0.515	1282.	0.949	624.	0.462	615.	0.455	623.	0.461	
0.485	4.136	3.093	1.465	1.226	0.917	0.489	1282.	0.950	626.	0.464	616.	0.456	624.	0.462	
0.451	4.095	3.065	1.431	1.226	0.918	0.455	1283.	0.950	628.	0.465	618.	0.458	625.	0.463	
0.417	4.044	3.028	1.397	1.226	0.919	0.421	1283.	0.950	630.	0.467	618.	0.458	626.	0.464	
0.383	3.980	2.983	1.363	1.223	0.917	0.387	1283.	0.950	632.	0.468	619.	0.459	627.	0.464	
0.349	3.911	2.933	1.329	1.222	0.916	0.353	1283.	0.951	634.	0.470	621.	0.460	627.	0.465	
			1.309	1.223	0.916	0.333	1284.	0.951	636.	0.471	623.	0.461	628.	0.465	
			1.302	1.222	0.918	0.326	1283.	0.951	638.	0.473	625.	0.463	629.	0.466	
			1.299	1.220	0.917	0.323	1284.	0.951	640.	0.474	627.	0.464	629.	0.466	
			1.295	1.219	0.917	0.319	1284.	0.951	642.	0.476	628.	0.465	630.	0.467	
0.311	3.692	2.778	1.291	1.220	0.918	0.315	1284.	0.951	644.	0.477	630.	0.467	631.	0.467	
0.308	3.673	2.766	1.288	1.221	0.920	0.312	1284.	0.951	646.	0.478	632.	0.468	632.	0.468	
0.306	3.655	2.754	1.286	1.219	0.919	0.310	1284.	0.951	648.	0.480	633.	0.469	633.	0.469	
0.303	3.638	2.741	1.283	1.216	0.916	0.307	1284.	0.951	650.	0.481	635.	0.471	634.	0.469	
0.299	3.622	2.731	1.279	1.216	0.917	0.303	1284.	0.951	652.	0.483	637.	0.472	635.	0.470	
0.296	3.607	2.723	1.276	1.216	0.918	0.300	1285.	0.952	653.	0.484	638.	0.473	635.	0.471	
0.294	3.590	2.710	1.274	1.214	0.910	0.298	1285.	0.952	655.	0.485	640.	0.474	636.	0.471	
0.292	3.576	2.702	1.272	1.215	0.918	0.296	1284.	0.951	657.	0.487	642.	0.475	637.	0.472	
0.289	3.562	2.695	1.269	1.214	0.919	0.293	1285.	0.952	659.	0.488	644.	0.477	638.	0.473	
0.287	3.547	2.683	1.267	1.211	0.916	0.291	1285.	0.952	660.	0.489	645.	0.478	639.	0.473	
0.284	3.534	2.675	1.264	1.212	0.918	0.288	1285.	0.952	662.	0.490	646.	0.479	640.	0.474	
0.282	3.519	2.666	1.262	1.212	0.918	0.286	1285.	0.952	664.	0.492	648.	0.480	640.	0.474	
0.281	3.505	2.657	1.261	1.211	0.918	0.285	1285.	0.952	666.	0.493	650.	0.481	641.	0.475	
0.278	3.490	2.646	1.258	1.211	0.918	0.282	1285.	0.952	667.	0.494	651.	0.482	642.	0.476	
0.275	3.474	2.637	1.255	1.209	0.918	0.279	1285.	0.952	669.	0.495	652.	0.483	643.	0.476	

ORIGINAL PAGE IS  
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DATE = 9-18-73  
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ARO, INC.  
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NASA/RI OH9 SHUTTLE TEST  
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GROUP	MODEL	PACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW			
5.	139	7.92	148.3	1350.	30.00	0.00	30.00	180.00	0			
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L	
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)	
99.7	0.0162	1.317	0.712	3877.	0.439E-03	0.258E-05	0.659E 06	4.52	0.0	0.20	22.58	
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZI2	TI2	TI2/TO	TI2	TI2/TO	TI2	TI2/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)	
0.272	3.459	2.627	1.252	1.211	0.920	0.276	1286.	0.952	670.	0.497	654.	0.484
0.270	3.443	2.615	1.250	1.211	0.920	0.274	1285.	0.952	672.	0.498	655.	0.485
0.265	3.427	2.603	1.245	1.208	0.917	0.269	1285.	0.952	674.	0.499	656.	0.486
0.262	3.408	2.589	1.242	1.208	0.918	0.266	1286.	0.952	675.	0.500	658.	0.487
0.259	3.388	2.577	1.239	1.206	0.919	0.263	1286.	0.952	677.	0.501	659.	0.488
0.257	3.370	2.563	1.237	1.208	0.919	0.261	1286.	0.953	678.	0.502	660.	0.489
0.254	3.352	2.551	1.234	1.207	0.919	0.258	1286.	0.953	680.	0.503	661.	0.490
0.251	3.334	2.538	1.231	1.205	0.917	0.255	1286.	0.953	681.	0.505	663.	0.491
0.248	3.316	2.526	1.228	1.204	0.917	0.252	1287.	0.953	683.	0.506	664.	0.492
0.246	3.299	2.514	1.226	1.206	0.919	0.250	1286.	0.953	684.	0.507	665.	0.492
0.242	3.274	2.497	1.222	1.201	0.916	0.246	1287.	0.953	686.	0.508	666.	0.493
0.240	3.258	2.485	1.220	1.203	0.918	0.244	1287.	0.954	687.	0.509	667.	0.494
0.237	3.241	2.473	1.217	1.202	0.918	0.241	1287.	0.953	689.	0.510	668.	0.495
0.234	3.220	2.458	1.214	1.200	0.916	0.238	1287.	0.954	690.	0.511	669.	0.495
0.231	3.205	2.449	1.211	1.202	0.919	0.235	1287.	0.954	691.	0.512	670.	0.496
0.228	3.186	2.436	1.208	1.200	0.918	0.232	1288.	0.954	693.	0.513	671.	0.497
0.226	3.165	2.422	1.206	1.199	0.917	0.230	1288.	0.954	694.	0.514	672.	0.498
0.224	3.147	2.408	1.204	1.197	0.916	0.228	1288.	0.954	695.	0.515	672.	0.498
0.222	3.132	2.397	1.202	1.198	0.917	0.226	1288.	0.954	697.	0.516	673.	0.499
0.220	3.113	2.384	1.200	1.198	0.918	0.224	1288.	0.954	698.	0.517	674.	0.499
0.217	3.094	2.371	1.197	1.197	0.917	0.221	1288.	0.954	699.	0.518	675.	0.500
0.213	3.076	2.359	1.193	1.197	0.918	0.217	1289.	0.955	701.	0.519	676.	0.501
0.210	3.056	2.345	1.190	1.196	0.918	0.214	1289.	0.955	702.	0.520	677.	0.502
0.208	3.036	2.331	1.188	1.195	0.918	0.212	1289.	0.955	703.	0.521	678.	0.502
0.204	3.016	2.316	1.184	1.194	0.917	0.208	1289.	0.955	705.	0.522	679.	0.503
0.202	2.994	2.302	1.182	1.193	0.918	0.206	1289.	0.955	706.	0.523	680.	0.503
0.199	2.975	2.287	1.179	1.194	0.918	0.203	1290.	0.955	707.	0.524	680.	0.504
0.197	2.955	2.272	1.177	1.193	0.918	0.201	1290.	0.955	708.	0.525	681.	0.505
0.194	2.936	2.260	1.174	1.191	0.917	0.198	1290.	0.955	710.	0.526	682.	0.505
0.191	2.918	2.246	1.171	1.191	0.917	0.195	1291.	0.956	711.	0.526	683.	0.506
0.189	2.899	2.233	1.169	1.193	0.919	0.193	1291.	0.956	712.	0.527	684.	0.507
0.186	2.880	2.219	1.166	1.191	0.918	0.190	1290.	0.956	713.	0.528	685.	0.507
0.184	2.865	2.206	1.164	1.193	0.919	0.188	1291.	0.956	714.	0.529	685.	0.508
0.182	2.852	2.194	1.162	1.195	0.919	0.186	1291.	0.956	715.	0.530	686.	0.508
0.180	2.837	2.183	1.160	1.194	0.919	0.184	1291.	0.956	717.	0.531	687.	0.509
0.177	2.821	2.170	1.157	1.193	0.918	0.181	1291.	0.956	718.	0.532	688.	0.510
0.174	2.806	2.159	1.154	1.195	0.919	0.178	1291.	0.957	719.	0.533	689.	0.510
0.171	2.790	2.145	1.151	1.193	0.918	0.175	1292.	0.957	720.	0.533	690.	0.511
0.168	2.774	2.133	1.148	1.195	0.919	0.172	1292.	0.957	721.	0.534	690.	0.511
0.165	2.755	2.116	1.145	1.195	0.919	0.169	1292.	0.957	722.	0.535	691.	0.512
0.162	2.737	2.103	1.142	1.194	0.918	0.166	1292.	0.957	723.	0.536	692.	0.513
0.159	2.717	2.089	1.139	1.197	0.920	0.163	1293.	0.958	724.	0.537	693.	0.513

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GROUP	MODEL	PACH NO.	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
5.	139	7.92	146.6	1350.	30.00	0.00	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MU-INF	FE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
99.7	0.0160	1.301	0.704	3877.	0.434E-03	0.258E-05	0.652E 06	4.52	0.0	0.20	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.156	2.696	2.072	1.136	1.194	0.918	0.160	1293.	0.958	726.	0.537	694.	0.514	679.	0.503
0.154	2.678	2.058	1.134	1.196	0.919	0.158	1294.	0.958	727.	0.538	694.	0.514	680.	0.504
0.151	2.660	2.044	1.131	1.196	0.919	0.155	1293.	0.958	728.	0.539	695.	0.515	681.	0.504
0.149	2.640	2.029	1.129	1.196	0.919	0.153	1294.	0.958	729.	0.540	696.	0.516	682.	0.505
0.146	2.624	2.018	1.126	1.195	0.919	0.150	1294.	0.958	730.	0.541	697.	0.516	682.	0.505
0.143	2.607	2.005	1.123	1.196	0.920	0.147	1294.	0.959	731.	0.541	697.	0.517	683.	0.506
0.140	2.589	1.991	1.120	1.194	0.918	0.144	1294.	0.959	732.	0.542	698.	0.517	684.	0.507
0.137	2.572	1.978	1.117	1.195	0.919	0.141	1295.	0.959	733.	0.543	699.	0.518	685.	0.507
0.134	2.554	1.965	1.114	1.195	0.920	0.138	1295.	0.959	734.	0.544	700.	0.518	685.	0.508
0.131	2.535	1.951	1.111	1.194	0.919	0.135	1295.	0.959	735.	0.544	701.	0.519	686.	0.508
0.128	2.518	1.937	1.108	1.196	0.920	0.132	1295.	0.959	736.	0.545	701.	0.519	687.	0.509
0.125	2.498	1.924	1.105	1.193	0.919	0.129	1295.	0.960	737.	0.546	702.	0.520	687.	0.509
0.121	2.481	1.910	1.101	1.194	0.920	0.125	1296.	0.960	738.	0.547	703.	0.521	688.	0.510
0.118	2.466	1.899	1.098	1.195	0.920	0.122	1297.	0.960	739.	0.547	703.	0.521	689.	0.510
0.115	2.446	1.883	1.095	1.194	0.920	0.119	1297.	0.961	740.	0.548	704.	0.522	690.	0.511
0.113	2.428	1.871	1.093	1.194	0.920	0.117	1297.	0.960	741.	0.549	705.	0.522	690.	0.511
0.110	2.410	1.857	1.090	1.191	0.918	0.114	1297.	0.961	742.	0.550	706.	0.523	691.	0.512
0.107	2.393	1.844	1.087	1.192	0.919	0.111	1298.	0.961	743.	0.550	706.	0.523	691.	0.512
0.105	2.378	1.834	1.085	1.193	0.920	0.109	1298.	0.962	744.	0.551	707.	0.524	692.	0.513
0.102	2.361	1.820	1.082	1.191	0.919	0.106	1299.	0.962	745.	0.552	708.	0.524	693.	0.513
0.099	2.342	1.806	1.079	1.191	0.919	0.103	1299.	0.962	746.	0.552	709.	0.525	693.	0.514
0.097	2.326	1.793	1.077	1.193	0.920	0.101	1299.	0.962	747.	0.553	710.	0.526	694.	0.514
0.094	2.308	1.780	1.074	1.191	0.919	0.098	1300.	0.963	748.	0.554	710.	0.526	695.	0.515
0.092	2.291	1.766	1.072	1.194	0.921	0.096	1301.	0.963	749.	0.554	711.	0.527	695.	0.515
0.088	2.272	1.751	1.068	1.195	0.921	0.092	1301.	0.964	749.	0.555	712.	0.527	696.	0.516
0.084	2.254	1.734	1.064	1.198	0.922	0.088	1302.	0.964	750.	0.556	713.	0.528	697.	0.516
0.082	2.230	1.711	1.062	1.199	0.920	0.086	1303.	0.965	751.	0.557	714.	0.529	697.	0.517
0.078	2.212	1.694	1.058	1.206	0.923	0.082	1304.	0.966	752.	0.557	714.	0.529	698.	0.517
0.075	2.186	1.668	1.055	1.208	0.922	0.079	1304.	0.966	753.	0.558	715.	0.530	699.	0.518
0.071	2.163	1.645	1.051	1.211	0.921	0.075	1305.	0.966	754.	0.559	716.	0.530	699.	0.518
0.066	2.133	1.618	1.046	1.214	0.921	0.070	1305.	0.966	755.	0.559	717.	0.531	700.	0.519
0.062	2.098	1.587	1.042	1.218	0.922	0.066	1304.	0.966	756.	0.560	718.	0.532	701.	0.519
0.058	2.060	1.554	1.038	1.223	0.923	0.062	1303.	0.965	757.	0.560	719.	0.532	701.	0.520
0.054	2.017	1.517	1.034	1.226	0.922	0.058	1300.	0.963	757.	0.561	719.	0.533	702.	0.520
0.050	1.968	1.477	1.030	1.230	0.923	0.054	1295.	0.959	758.	0.562	720.	0.534	703.	0.521
0.046	1.908	1.428	1.026	1.228	0.919	0.050	1286.	0.952	759.	0.562	721.	0.534	703.	0.521
0.042	1.839	1.374	1.022	1.231	0.920	0.046	1273.	0.943	760.	0.563	722.	0.535	704.	0.522
0.038	1.760	1.315	1.018	1.231	0.920	0.042	1254.	0.929	761.	0.564	723.	0.536	705.	0.522
0.033	1.674	1.251	1.013	1.231	0.920	0.037	1231.	0.912	762.	0.564	724.	0.536	705.	0.523
0.029	1.579	1.181	1.009	1.231	0.921	0.033	1204.	0.892	763.	0.565	725.	0.537	706.	0.523
0.025	1.477	1.106	1.005	1.229	0.921	0.029	1167.	0.864	764.	0.566	726.	0.538	707.	0.524
0.020	1.374	1.029	1.000	1.226	0.919	0.024	1123.	0.832	764.	0.566	727.	0.538	707.	0.524



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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
5.	139	7.92	150.3	1350.	30.00	0.00	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
99.7	0.0164	1.334	0.721	3877.	0.445E-03	0.258E-05	0.668E 06	4.52	0.0	0.20	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/T0	Tw1 (DEG R)	Tw1/T0	Tw2 (DEG R)	Tw2/T0	Tw3 (DEG R)	Tw3/T0
0.016	1.279	0.959	0.996	1.226	0.919	0.020	1082.	0.802	765.	0.567	727.	0.539	708.	0.524
0.012	1.192	0.894	0.992	1.224	0.918	0.016	1042.	0.772	766.	0.567	728.	0.539	709.	0.525
0.007	1.117	0.839	0.987	1.226	0.921	0.011	998.	0.739	767.	0.568	729.	0.540	709.	0.525
0.007	0.857	0.646	0.987	1.220	0.920	0.011	977.	0.724	771.	0.571	733.	0.543	712.	0.527

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 ARO, INC.  
 ARNOLD-AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
7.	139	1.92	153.2	1334.	29.98	0.02	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	MHO-INF	PU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.5	0.0168	1.361	0.736	3854.	0.459E-03	0.255E-05	0.694E 06	2.26	0.0	0.10	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
1.149	0.913	0.671	2.129	1.252	0.920	1.153	1241.	0.930	551.	0.413	560.	0.420	571.	0.428
1.127	0.914	0.672	2.107	1.250	0.919	1.131	1241.	0.930	553.	0.415	563.	0.422	573.	0.430
1.094	0.913	0.671	2.074	1.249	0.919	1.098	1241.	0.930	556.	0.417	565.	0.423	574.	0.431
1.063	0.911	0.671	2.043	1.248	0.920	1.067	1241.	0.929	558.	0.418	567.	0.425	576.	0.431
1.030	0.911	0.671	2.010	1.246	0.918	1.034	1241.	0.929	560.	0.419	569.	0.426	577.	0.432
0.997	0.911	0.671	1.977	1.244	0.917	1.001	1241.	0.929	562.	0.421	571.	0.428	579.	0.433
0.964	0.910	0.671	1.944	1.243	0.918	0.968	1240.	0.929	564.	0.423	572.	0.429	580.	0.435
0.930	0.911	0.673	1.910	1.242	0.917	0.934	1241.	0.930	568.	0.425	574.	0.430	582.	0.436
0.896	0.912	0.674	1.876	1.240	0.917	0.900	1241.	0.929	571.	0.428	576.	0.431	583.	0.437
0.863	0.912	0.675	1.843	1.240	0.918	0.867	1241.	0.929	575.	0.431	577.	0.432	584.	0.438
0.829	0.910	0.674	1.809	1.237	0.917	0.833	1241.	0.929	578.	0.433	579.	0.434	586.	0.439
0.795	0.910	0.674	1.775	1.236	0.917	0.799	1241.	0.930	581.	0.435	580.	0.434	587.	0.440
0.762	0.910	0.674	1.742	1.236	0.917	0.766	1241.	0.930	584.	0.437	581.	0.435	588.	0.441
0.727	0.909	0.674	1.707	1.234	0.915	0.731	1241.	0.930	586.	0.439	582.	0.436	589.	0.441
0.694	0.909	0.674	1.674	1.234	0.916	0.698	1241.	0.930	588.	0.440	584.	0.438	590.	0.442
0.660	0.911	0.676	1.640	1.235	0.917	0.664	1241.	0.930	590.	0.442	586.	0.439	592.	0.443
0.626	0.909	0.674	1.606	1.234	0.916	0.630	1241.	0.930	593.	0.444	588.	0.440	592.	0.444
0.592	0.909	0.675	1.572	1.234	0.916	0.596	1241.	0.930	596.	0.447	589.	0.442	593.	0.444
0.558	0.909	0.675	1.538	1.235	0.917	0.562	1241.	0.930	599.	0.449	591.	0.443	594.	0.445
0.525	0.908	0.674	1.505	1.234	0.916	0.529	1241.	0.930	602.	0.451	593.	0.444	595.	0.446
0.491	0.909	0.675	1.471	1.236	0.918	0.495	1241.	0.930	604.	0.452	595.	0.446	596.	0.447
0.457	0.910	0.675	1.437	1.236	0.918	0.461	1240.	0.929	606.	0.454	596.	0.446	597.	0.447
0.423	0.996	0.739	1.403	1.235	0.917	0.427	1249.	0.935	607.	0.455	597.	0.448	598.	0.448
0.404	1.976	1.469	1.384	1.235	0.918	0.408	1270.	0.951	608.	0.456	599.	0.448	599.	0.448
0.403	4.006	2.984	1.383	1.232	0.918	0.407	1271.	0.952	634.	0.475	619.	0.463	608.	0.455
0.399	4.002	2.980	1.379	1.232	0.917	0.403	1271.	0.952	636.	0.477	620.	0.465	609.	0.456
0.394	3.990	2.973	1.374	1.230	0.917	0.398	1270.	0.951	638.	0.478	622.	0.466	609.	0.456
0.390	3.979	2.962	1.370	1.232	0.917	0.394	1270.	0.951	641.	0.480	624.	0.467	610.	0.457
0.387	3.964	2.953	1.367	1.232	0.918	0.391	1270.	0.951	643.	0.481	626.	0.469	611.	0.457
0.384	3.951	2.942	1.364	1.232	0.917	0.388	1270.	0.951	645.	0.483	627.	0.470	611.	0.458
0.382	3.939	2.935	1.362	1.232	0.918	0.386	1270.	0.951	647.	0.484	629.	0.471	612.	0.458
0.380	3.927	2.926	1.360	1.231	0.917	0.384	1271.	0.952	648.	0.486	631.	0.473	612.	0.459
0.378	3.920	2.920	1.358	1.231	0.917	0.382	1271.	0.952	650.	0.487	632.	0.474	613.	0.459
0.376	3.909	2.911	1.356	1.231	0.917	0.380	1271.	0.952	652.	0.489	634.	0.475	614.	0.460
0.374	3.903	2.908	1.354	1.233	0.919	0.378	1271.	0.952	654.	0.490	636.	0.476	614.	0.460
0.372	3.894	2.901	1.352	1.232	0.918	0.376	1271.	0.952	656.	0.491	637.	0.477	615.	0.461
0.369	3.886	2.893	1.349	1.233	0.918	0.373	1271.	0.952	658.	0.493	639.	0.478	616.	0.461
0.366	3.878	2.887	1.346	1.234	0.919	0.370	1271.	0.952	660.	0.494	640.	0.480	616.	0.462
0.364	3.869	2.879	1.344	1.235	0.919	0.368	1271.	0.952	662.	0.496	642.	0.481	617.	0.462
0.362	3.856	2.869	1.342	1.234	0.918	0.366	1271.	0.952	663.	0.497	643.	0.482	618.	0.463
0.359	3.843	2.859	1.339	1.233	0.917	0.363	1271.	0.952	665.	0.498	645.	0.483	618.	0.463
0.357	3.831	2.850	1.337	1.234	0.918	0.361	1272.	0.953	667.	0.500	646.	0.484	619.	0.463

ORIGINAL PAGE IS  
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ARNOLD AIR FORCE STATION--TENN.  
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GROUP	MODEL	MACH NO.	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
7.	139	7.92	151.3	1335.	30.00	0.00	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	HWO-INF	ML-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.6	0.0165	1.344	0.727	3856.	0.453E-03	0.255E-05	0.684E 06	2.26	0.0	0.10	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.354	3.818	2.841	1.334	1.235	0.919	0.358	1272.	0.953	669.	0.501	648.	0.485	619.	0.464
0.354	3.806	2.832	1.334	1.232	0.917	0.358	1272.	0.953	670.	0.502	649.	0.486	620.	0.464
0.351	3.791	2.822	1.331	1.234	0.919	0.355	1272.	0.953	672.	0.503	651.	0.488	620.	0.465
0.346	3.774	2.808	1.326	1.233	0.917	0.350	1272.	0.953	674.	0.505	653.	0.489	621.	0.465
0.344	3.756	2.796	1.324	1.232	0.917	0.348	1273.	0.953	675.	0.506	655.	0.490	622.	0.466
0.340	3.738	2.783	1.320	1.233	0.918	0.344	1273.	0.953	677.	0.507	656.	0.491	622.	0.466
0.337	3.720	2.770	1.317	1.231	0.917	0.341	1273.	0.953	678.	0.508	658.	0.493	623.	0.466
0.334	3.703	2.757	1.314	1.232	0.917	0.338	1273.	0.953	680.	0.509	660.	0.494	624.	0.467
0.331	3.685	2.745	1.311	1.231	0.917	0.335	1273.	0.953	682.	0.510	662.	0.495	624.	0.467
0.328	3.665	2.731	1.308	1.228	0.915	0.332	1273.	0.953	683.	0.511	663.	0.496	625.	0.468
0.325	3.652	2.721	1.305	1.231	0.917	0.329	1273.	0.953	685.	0.513	665.	0.497	625.	0.468
0.322	3.637	2.709	1.302	1.232	0.918	0.326	1274.	0.953	686.	0.514	666.	0.499	626.	0.469
0.320	3.621	2.699	1.300	1.231	0.918	0.324	1274.	0.953	688.	0.515	668.	0.500	627.	0.469
0.317	3.606	2.688	1.297	1.230	0.917	0.321	1274.	0.953	689.	0.516	669.	0.501	627.	0.469
0.315	3.592	2.680	1.295	1.231	0.919	0.319	1274.	0.954	691.	0.517	671.	0.502	628.	0.470
0.312	3.576	2.669	1.292	1.230	0.918	0.316	1274.	0.954	692.	0.518	672.	0.503	628.	0.470
0.309	3.562	2.660	1.289	1.229	0.918	0.313	1274.	0.954	694.	0.519	674.	0.504	629.	0.471
0.306	3.546	2.649	1.286	1.229	0.918	0.310	1274.	0.954	695.	0.520	675.	0.506	629.	0.471
0.303	3.529	2.638	1.283	1.228	0.918	0.307	1274.	0.954	697.	0.521	677.	0.507	630.	0.471
0.301	3.512	2.625	1.281	1.227	0.917	0.305	1275.	0.954	698.	0.523	678.	0.508	630.	0.472
0.298	3.498	2.616	1.278	1.227	0.918	0.302	1275.	0.955	700.	0.524	679.	0.508	631.	0.472
0.296	3.484	2.607	1.276	1.228	0.919	0.300	1275.	0.955	701.	0.525	681.	0.509	632.	0.473
0.293	3.469	2.594	1.273	1.227	0.918	0.297	1276.	0.955	702.	0.526	682.	0.510	632.	0.473
0.290	3.453	2.584	1.270	1.226	0.918	0.294	1275.	0.955	704.	0.527	683.	0.511	633.	0.474
0.287	3.435	2.571	1.267	1.223	0.916	0.291	1275.	0.955	705.	0.528	685.	0.512	633.	0.474
0.284	3.421	2.562	1.264	1.225	0.917	0.288	1276.	0.955	707.	0.529	686.	0.513	634.	0.474
0.281	3.405	2.550	1.261	1.226	0.918	0.285	1276.	0.955	708.	0.530	687.	0.514	634.	0.475
0.279	3.389	2.540	1.259	1.224	0.917	0.283	1276.	0.955	710.	0.531	689.	0.515	635.	0.475
0.274	3.368	2.525	1.254	1.223	0.917	0.278	1276.	0.955	711.	0.532	690.	0.517	635.	0.476
0.271	3.351	2.513	1.251	1.224	0.918	0.275	1277.	0.956	713.	0.533	691.	0.518	636.	0.476
0.268	3.331	2.498	1.248	1.224	0.918	0.272	1277.	0.956	714.	0.534	693.	0.519	637.	0.477
0.266	3.311	2.485	1.246	1.223	0.918	0.270	1277.	0.956	715.	0.536	695.	0.520	637.	0.477
0.263	3.296	2.475	1.243	1.223	0.918	0.267	1278.	0.957	717.	0.537	696.	0.521	638.	0.477
0.259	3.279	2.464	1.239	1.224	0.920	0.263	1278.	0.956	719.	0.538	697.	0.522	638.	0.478
0.257	3.262	2.450	1.237	1.223	0.918	0.261	1278.	0.956	720.	0.539	699.	0.523	639.	0.478
0.254	3.246	2.438	1.234	1.223	0.919	0.258	1278.	0.956	722.	0.540	700.	0.524	640.	0.479
0.251	3.225	2.422	1.231	1.222	0.918	0.255	1278.	0.957	723.	0.541	702.	0.525	640.	0.479
0.248	3.210	2.412	1.228	1.222	0.918	0.252	1278.	0.957	725.	0.542	703.	0.526	641.	0.479
0.245	3.195	2.401	1.225	1.224	0.920	0.249	1279.	0.957	726.	0.543	704.	0.527	641.	0.480
0.241	3.180	2.390	1.221	1.223	0.919	0.245	1279.	0.957	728.	0.545	705.	0.528	642.	0.480
0.239	3.163	2.377	1.219	1.222	0.918	0.243	1279.	0.957	729.	0.546	706.	0.529	642.	0.481
0.235	3.145	2.364	1.215	1.222	0.918	0.239	1279.	0.958	731.	0.547	708.	0.530	643.	0.481

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 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
7.	139	7.92	149.8	1336.	30.00	0.00	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.6	0.0164	1.331	0.719	3857.	0.448E-03	0.255E-05	0.677E 06	2.26	0.0	0.10	22.56			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)	(DEG R)	(DEG R)		(DEG R)		(DEG R)	
0.231	3.127	2.350	1.211	1.222	0.918	0.235	1280.	0.958	732.	0.548	709.	0.531	643.	0.481
0.228	3.110	2.337	1.208	1.223	0.919	0.232	1280.	0.958	734.	0.549	710.	0.532	644.	0.482
0.225	3.093	2.324	1.205	1.222	0.918	0.229	1280.	0.958	735.	0.550	712.	0.533	644.	0.482
0.221	3.075	2.311	1.201	1.222	0.918	0.225	1280.	0.957	737.	0.551	713.	0.533	645.	0.482
0.218	3.055	2.296	1.198	1.220	0.917	0.222	1281.	0.958	738.	0.552	714.	0.534	645.	0.482
0.214	3.037	2.282	1.194	1.223	0.919	0.218	1281.	0.958	740.	0.553	716.	0.535	645.	0.483
0.210	3.017	2.267	1.190	1.224	0.920	0.214	1282.	0.959	741.	0.554	717.	0.536	646.	0.483
0.207	2.996	2.251	1.187	1.220	0.917	0.211	1282.	0.959	742.	0.555	718.	0.537	646.	0.484
0.204	17.517	13.163	1.184	15.763	11.846	0.208	1282.	0.959	744.	0.556	719.	0.538	647.	0.484
0.200	2.955	2.221	1.180	1.222	0.918	0.204	1282.	0.959	745.	0.557	720.	0.539	647.	0.484
0.198	2.934	2.206	1.178	1.219	0.917	0.202	1282.	0.959	746.	0.558	721.	0.540	648.	0.485
0.195	2.919	2.194	1.175	1.224	0.920	0.199	1282.	0.959	748.	0.559	722.	0.540	648.	0.485
0.192	2.903	2.183	1.172	1.224	0.920	0.196	1283.	0.960	749.	0.560	724.	0.541	649.	0.485
0.189	2.888	2.170	1.169	1.223	0.919	0.193	1283.	0.959	750.	0.561	725.	0.542	649.	0.486
0.187	2.871	2.159	1.167	1.222	0.919	0.191	1283.	0.960	751.	0.562	726.	0.543	650.	0.486
0.184	2.856	2.148	1.164	1.223	0.920	0.188	1283.	0.960	752.	0.563	727.	0.544	650.	0.486
0.181	2.843	2.136	1.161	1.223	0.919	0.185	1284.	0.960	753.	0.564	728.	0.545	651.	0.487
0.178	2.829	2.126	1.158	1.224	0.920	0.182	1284.	0.960	755.	0.564	729.	0.545	651.	0.487
0.176	2.816	2.116	1.156	1.226	0.921	0.180	1283.	0.960	756.	0.565	730.	0.546	651.	0.487
0.173	2.802	2.106	1.153	1.223	0.919	0.177	1284.	0.960	757.	0.566	731.	0.547	652.	0.488
0.170	2.789	2.096	1.150	1.223	0.919	0.174	1284.	0.961	758.	0.567	732.	0.548	652.	0.488
0.167	2.777	2.087	1.147	1.224	0.920	0.171	1285.	0.961	759.	0.568	733.	0.549	653.	0.488
0.165	2.766	2.079	1.145	1.223	0.919	0.169	1285.	0.961	760.	0.569	734.	0.549	653.	0.488
0.162	2.753	2.069	1.142	1.224	0.920	0.166	1285.	0.961	761.	0.569	736.	0.550	653.	0.489
0.159	2.738	2.057	1.139	1.224	0.920	0.163	1285.	0.961	762.	0.570	737.	0.551	654.	0.489
0.155	2.724	2.047	1.135	1.224	0.920	0.159	1286.	0.962	764.	0.571	738.	0.552	654.	0.489
0.152	2.712	2.038	1.132	1.225	0.920	0.156	1286.	0.962	765.	0.572	739.	0.553	655.	0.490
0.149	2.698	2.027	1.129	1.225	0.920	0.153	1286.	0.962	766.	0.573	740.	0.553	655.	0.490
0.146	2.684	2.017	1.126	1.223	0.919	0.150	1287.	0.962	767.	0.573	741.	0.554	656.	0.490
0.142	2.672	2.008	1.122	1.225	0.920	0.146	1287.	0.962	768.	0.574	742.	0.554	656.	0.490
0.139	2.659	1.998	1.119	1.225	0.920	0.143	1287.	0.962	769.	0.575	743.	0.555	657.	0.491
0.137	2.643	1.986	1.117	1.225	0.920	0.141	1287.	0.962	770.	0.575	744.	0.556	657.	0.491
0.134	2.629	1.976	1.114	1.223	0.919	0.138	1288.	0.962	771.	0.576	744.	0.556	657.	0.491
0.130	2.617	1.965	1.110	1.226	0.921	0.134	1288.	0.963	772.	0.577	745.	0.557	658.	0.492
0.127	2.600	1.954	1.107	1.223	0.919	0.131	1288.	0.963	773.	0.578	746.	0.558	658.	0.492
0.124	2.584	1.942	1.104	1.223	0.919	0.128	1289.	0.963	774.	0.578	747.	0.558	659.	0.492
0.121	2.571	1.931	1.101	1.226	0.921	0.125	1289.	0.963	775.	0.579	748.	0.559	659.	0.493
0.117	2.553	1.918	1.097	1.224	0.920	0.121	1289.	0.964	776.	0.580	749.	0.560	660.	0.493
0.114	2.536	1.906	1.094	1.224	0.920	0.118	1290.	0.964	777.	0.581	750.	0.560	660.	0.493
0.111	2.517	1.891	1.091	1.225	0.920	0.115	1290.	0.964	778.	0.581	751.	0.561	661.	0.494
0.108	2.493	1.874	1.088	1.221	0.918	0.112	1291.	0.965	779.	0.582	752.	0.562	661.	0.494
0.104	2.477	1.862	1.084	1.225	0.921	0.108	1291.	0.965	780.	0.583	752.	0.562	662.	0.494

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GROUP	MODEL	MACH NO.	PO(PSIA)	TO( DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
7.	139	7.92	149.8	1338.	30.00	0.00	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.8	0.0164	1.331	0.719	3860.	0.447E-03	0.256E-05	0.675E 06	2.26	0.0	0.10	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.102	2.457	1.846	1.082	1.224	0.920	0.106	1291.	0.965	781.	0.583	754.	0.563	662.	0.495
0.099	2.432	1.828	1.079	1.222	0.919	0.103	1292.	0.966	782.	0.584	755.	0.564	662.	0.495
0.095	2.413	1.813	1.075	1.226	0.921	0.099	1293.	0.966	783.	0.585	755.	0.565	663.	0.495
0.091	2.388	1.794	1.071	1.225	0.920	0.095	1293.	0.966	784.	0.586	756.	0.565	663.	0.496
0.087	2.356	1.772	1.067	1.222	0.919	0.091	1293.	0.967	785.	0.586	757.	0.566	664.	0.496
0.082	2.326	1.749	1.062	1.224	0.920	0.086	1295.	0.968	785.	0.587	758.	0.567	664.	0.496
0.078	2.292	1.723	1.058	1.224	0.920	0.082	1295.	0.968	786.	0.588	759.	0.567	665.	0.497
0.074	2.256	1.696	1.054	1.224	0.920	0.078	1296.	0.969	788.	0.589	760.	0.568	665.	0.497
0.070	2.215	1.665	1.050	1.225	0.921	0.074	1297.	0.969	789.	0.589	761.	0.569	666.	0.497
0.066	2.168	1.630	1.046	1.220	0.918	0.070	1298.	0.970	790.	0.590	762.	0.569	666.	0.498
0.062	2.127	1.601	1.042	1.223	0.920	0.066	1299.	0.971	791.	0.591	762.	0.570	667.	0.498
0.057	2.083	1.568	1.037	1.223	0.920	0.061	1300.	0.972	792.	0.592	763.	0.570	667.	0.498
0.053	2.035	1.532	1.033	1.224	0.921	0.057	1301.	0.972	793.	0.593	764.	0.571	667.	0.499
0.049	1.985	1.495	1.029	1.223	0.921	0.053	1301.	0.972	810.	0.606	765.	0.572	668.	0.499
0.044	1.932	1.455	1.024	1.223	0.921	0.048	1300.	0.972	812.	0.607	766.	0.572	668.	0.499
0.039	1.875	1.413	1.019	1.222	0.921	0.043	1298.	0.970	813.	0.608	767.	0.573	669.	0.500
0.034	1.813	1.366	1.014	1.223	0.921	0.038	1291.	0.965	814.	0.608	767.	0.574	669.	0.500
0.029	1.740	1.311	1.009	1.221	0.920	0.033	1280.	0.956	815.	0.609	768.	0.574	670.	0.500
0.024	1.656	1.248	1.004	1.223	0.921	0.028	1257.	0.939	817.	0.610	769.	0.575	670.	0.501
0.019	1.560	1.175	0.999	1.224	0.923	0.023	1227.	0.917	818.	0.611	770.	0.575	670.	0.501
0.013	1.454	1.096	0.993	1.223	0.921	0.017	1182.	0.883	819.	0.612	771.	0.576	671.	0.501
0.008	1.350	1.017	0.988	1.222	0.921	0.012	1127.	0.842	820.	0.613	771.	0.576	671.	0.502
0.007	1.178	0.889	0.987	1.221	0.921	0.011	1116.	0.834	823.	0.615	773.	0.578	672.	0.502

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GROUP	MODEL	MACH NO.	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
8.	139	7.92	153.4	1346.	29.97	0.03	30.00	180.00	0
<hr/>									
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	PU-INF	RE/FT	X	Y
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)
99.4	0.0168	1.363	0.737	3872.	0.455E-03	0.257E-05	0.685E 06	13.55	0.0
<hr/>									
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TW1	TW1/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)	(DEG R)	(DEG R)
<hr/>									
			2.287	1.254	0.921	1.311	1254.	0.932	551.
			2.268	1.253	0.920	1.292	1254.	0.932	553.
			2.234	1.252	0.920	1.258	1254.	0.931	556.
			2.200	1.253	0.922	1.224	1254.	0.932	558.
			2.166	1.252	0.921	1.190	1254.	0.931	561.
			2.131	1.250	0.920	1.155	1253.	0.931	563.
			2.095	1.249	0.920	1.119	1259.	0.936	566.
1.088	2.181	1.607	2.068	1.250	0.921	1.092	1268.	0.942	569.
1.085	4.452	3.306	2.065	1.238	0.920	1.089	1268.	0.942	598.
1.049	4.467	3.317	2.029	1.235	0.917	1.053	1268.	0.942	600.
1.014	4.499	3.345	1.994	1.233	0.917	1.018	1268.	0.942	603.
0.980	4.535	3.374	1.960	1.234	0.918	0.984	1268.	0.942	605.
0.947	4.563	3.400	1.927	1.232	0.918	0.951	1268.	0.942	608.
0.912	4.594	3.427	1.892	1.231	0.919	0.916	1268.	0.942	610.
0.878	4.623	3.451	1.858	1.229	0.918	0.882	1267.	0.941	613.
0.842	4.646	3.470	1.822	1.228	0.918	0.846	1267.	0.942	615.
0.808	4.663	3.486	1.788	1.227	0.917	0.812	1267.	0.942	617.
0.773	4.678	3.496	1.753	1.226	0.916	0.777	1267.	0.941	620.
0.738	4.697	3.511	1.718	1.227	0.917	0.742	1268.	0.942	622.
0.703	4.715	3.524	1.683	1.227	0.917	0.707	1268.	0.942	624.
0.668	4.726	3.532	1.648	1.223	0.914	0.672	1268.	0.942	626.
0.633	4.756	3.555	1.613	1.225	0.916	0.637	1268.	0.942	629.
0.597	4.805	3.591	1.577	1.225	0.916	0.601	1268.	0.942	631.
0.562	4.858	3.631	1.542	1.223	0.914	0.566	1267.	0.942	633.
0.527	4.892	3.657	1.507	1.223	0.914	0.531	1267.	0.942	635.
0.492	4.905	3.669	1.472	1.222	0.914	0.496	1267.	0.942	637.
0.457	4.892	3.659	1.437	1.221	0.914	0.461	1268.	0.942	639.
0.422	4.855	3.636	1.402	1.219	0.913	0.426	1268.	0.942	641.
0.387	4.803	3.597	1.367	1.219	0.913	0.391	1269.	0.943	643.
0.352	4.736	3.550	1.332	1.218	0.913	0.356	1270.	0.943	645.
0.325	4.656	3.492	1.305	1.220	0.915	0.329	1270.	0.944	647.
0.316	4.589	3.444	1.296	1.216	0.912	0.320	1270.	0.944	649.
0.307	4.542	3.409	1.267	1.217	0.914	0.311	1271.	0.944	651.
0.300	4.501	3.380	1.280	1.215	0.912	0.304	1271.	0.944	653.
0.296	4.473	3.361	1.276	1.215	0.913	0.300	1271.	0.944	655.
0.292	4.450	3.346	1.272	1.214	0.913	0.296	1271.	0.944	657.
0.289	4.430	3.334	1.269	1.212	0.912	0.293	1271.	0.944	658.
0.287	4.417	3.326	1.267	1.211	0.912	0.291	1271.	0.944	660.
0.284	4.407	3.320	1.264	1.212	0.914	0.288	1271.	0.944	662.
0.282	4.394	3.315	1.262	1.210	0.913	0.286	1271.	0.945	664.
0.279	4.382	3.306	1.259	1.209	0.912	0.283	1271.	0.944	666.
0.276	4.371	3.300	1.256	1.209	0.913	0.280	1271.	0.944	667.

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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
8.	139	7.94	149.0	1346.	30.00	0.00	30.00	180.00	0
T-INF	P-INF	PO1	Q-INF	U-INF	MNO-INF	MU-INF	RE/FT	X	Y
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)
99.4	0.0163	1.323	0.715	3872.	0.442E-03	0.257E-05	0.665E 06	13.55	0.0
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TW1	TW1/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)	(DEG R)	(DEG R)
0.272	4.358	3.294	1.252	1.209	0.914	0.216	1271.	0.945	665.
0.268	4.343	3.286	1.248	1.205	0.912	0.272	1271.	0.945	671.
0.264	4.331	3.278	1.244	1.207	0.914	0.268	1271.	0.945	672.
0.261	4.313	3.263	1.241	1.205	0.912	0.265	1272.	0.945	674.
0.258	4.300	3.253	1.238	1.205	0.912	0.262	1271.	0.945	676.
0.256	4.291	3.248	1.236	1.209	0.916	0.260	1272.	0.945	677.
0.253	4.279	3.239	1.233	1.207	0.914	0.257	1272.	0.945	679.
0.251	4.272	3.234	1.231	1.209	0.916	0.255	1272.	0.945	680.
0.248	4.263	3.225	1.228	1.207	0.913	0.252	1273.	0.945	682.
0.246	4.257	3.220	1.226	1.208	0.914	0.250	1272.	0.945	683.
0.243	4.246	3.212	1.223	1.207	0.913	0.247	1273.	0.945	685.
0.240	4.234	3.205	1.220	1.208	0.914	0.244	1273.	0.946	687.
0.237	4.225	3.198	1.217	1.208	0.915	0.241	1273.	0.946	688.
0.234	4.213	3.187	1.214	1.207	0.913	0.238	1273.	0.946	689.
0.231	4.199	3.177	1.211	1.206	0.912	0.235	1273.	0.946	691.
0.228	4.189	3.169	1.208	1.208	0.914	0.232	1273.	0.946	692.
0.225	4.177	3.160	1.205	1.206	0.913	0.229	1273.	0.946	694.
0.222	4.163	3.152	1.202	1.204	0.911	0.226	1273.	0.946	695.
0.218	4.153	3.146	1.198	1.206	0.914	0.222	1274.	0.946	697.
0.215	4.140	3.136	1.195	1.208	0.915	0.219	1274.	0.946	698.
0.212	4.125	3.124	1.192	1.207	0.915	0.216	1274.	0.946	699.
0.209	4.106	3.115	1.189	1.207	0.915	0.213	1274.	0.946	701.
0.206	4.094	3.105	1.186	1.209	0.917	0.210	1274.	0.946	702.
0.202	4.080	3.095	1.182	1.214	0.921	0.206	1275.	0.947	703.
0.198	4.065	3.085	1.178	1.217	0.924	0.202	1274.	0.947	705.
0.194	4.048	3.074	1.174	1.221	0.928	0.198	1275.	0.947	706.
0.191	4.031	3.061	1.171	1.225	0.931	0.195	1275.	0.947	707.
0.188	4.016	3.052	1.168	1.231	0.936	0.192	1275.	0.947	709.
0.185	4.003	3.044	1.165	1.237	0.941	0.189	1275.	0.947	710.
0.182	3.986	3.034	1.162	1.244	0.947	0.186	1275.	0.948	711.
0.179	3.974	3.023	1.159	1.254	0.954	0.183	1276.	0.948	712.
0.175	3.963	3.013	1.155	1.266	0.963	0.179	1277.	0.948	714.
0.172	3.951	3.001	1.152	1.278	0.971	0.176	1277.	0.948	715.
0.169	3.941	2.990	1.149	1.291	0.979	0.173	1277.	0.949	716.
0.166	3.932	2.981	1.146	1.316	0.997	0.170	1277.	0.949	717.
0.162	3.919	2.967	1.142	1.351	1.022	0.166	1278.	0.950	719.
0.158	3.902	2.952	1.138	1.400	1.059	0.162	1278.	0.949	720.
0.155	3.889	2.940	1.135	1.462	1.105	0.159	1278.	0.961	721.
0.153	3.876	2.929	1.133	1.536	1.160	0.157	1278.	0.950	722.
0.150	3.859	2.914	1.130	1.629	1.230	0.154	1279.	0.949	723.
0.148	3.843	2.902	1.128	1.719	1.298	0.152	1279.	0.950	724.
0.144	3.826	2.887	1.124	1.859	1.403	0.148	1279.	0.950	726.

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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
8.	139	7.92	149.4	1347.	30.00	0.00	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	RHO-INF	PU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
99.4	0.0163	1.326	0.717	3873.	0.443E-03	0.257E-05	0.666E 06	13.55	0.0	0.60	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.141	3.805	2.869	1.121	1.986	1.447	0.145	1280.	0.950	727.	0.540	631.	0.469	612.	0.455
0.138	3.785	2.854	1.118	2.135	1.610	0.142	1280.	0.950	728.	0.540	632.	0.469	613.	0.455
0.134	3.762	2.836	1.114	2.275	1.716	0.138	1280.	0.950	729.	0.541	632.	0.470	613.	0.455
0.131	3.738	2.817	1.111	2.451	1.847	0.135	1281.	0.951	730.	0.542	633.	0.470	614.	0.456
0.127	3.713	2.798	1.107	2.588	1.950	0.131	1281.	0.951	731.	0.543	634.	0.470	614.	0.456
0.125	3.686	2.777	1.105	2.755	2.075	0.129	1282.	0.951	732.	0.544	634.	0.471	615.	0.456
0.121	3.657	2.754	1.101	2.944	2.217	0.125	1282.	0.951	733.	0.544	635.	0.471	615.	0.457
0.118	3.627	2.731	1.098	3.122	2.351	0.122	1282.	0.952	734.	0.545	635.	0.472	616.	0.457
0.115	3.594	2.706	1.095	3.363	2.533	0.119	1282.	0.952	736.	0.546	636.	0.472	616.	0.458
0.111	3.560	2.680	1.091	3.561	2.681	0.115	1283.	0.952	737.	0.547	637.	0.473	617.	0.458
0.108	3.525	2.656	1.088	3.746	2.823	0.112	1283.	0.952	738.	0.548	637.	0.473	617.	0.458
0.105	3.487	2.626	1.085	3.980	2.997	0.109	1283.	0.952	739.	0.548	638.	0.474	618.	0.459
0.101	3.443	2.593	1.081	4.217	3.175	0.105	1283.	0.953	740.	0.549	638.	0.474	619.	0.459
0.097	3.396	2.557	1.077	4.366	3.288	0.101	1283.	0.953	741.	0.550	639.	0.474	619.	0.460
0.094	3.349	2.522	1.074	4.445	3.347	0.098	1283.	0.952	742.	0.551	639.	0.475	620.	0.460
0.090	3.296	2.483	1.070	4.489	3.382	0.094	1282.	0.952	743.	0.551	640.	0.475	620.	0.461
0.085	3.240	2.440	1.065	4.492	3.382	0.089	1281.	0.951	744.	0.552	641.	0.476	621.	0.461
0.081	3.176	2.392	1.061	4.494	3.384	0.085	1281.	0.951	745.	0.553	641.	0.476	622.	0.462
0.077	3.111	2.344	1.057	4.494	3.386	0.081	1279.	0.950	746.	0.554	642.	0.476	622.	0.462
0.072	3.033	2.287	1.052	4.497	3.391	0.076	1277.	0.948	747.	0.554	642.	0.477	623.	0.463
0.064	2.580	1.946	1.044	4.501	3.394	0.068	1263.	0.938	754.	0.560	647.	0.480	628.	0.466
0.061	2.558	1.930	1.041	4.502	3.397	0.065	1258.	0.934	755.	0.561	647.	0.480	629.	0.467
0.058	2.507	1.891	1.038	4.507	3.400	0.062	1249.	0.927	756.	0.561	648.	0.481	629.	0.467
0.055	2.442	1.844	1.035	4.507	3.403	0.059	1240.	0.921	757.	0.562	649.	0.482	630.	0.468
0.053	2.366	1.786	1.033	4.511	3.406	0.057	1231.	0.914	758.	0.563	649.	0.482	631.	0.468
0.050	2.287	1.728	1.030	4.517	3.413	0.054	1220.	0.906	759.	0.563	649.	0.482	631.	0.469
0.048	2.195	1.658	1.028	4.516	3.411	0.052	1204.	0.894	760.	0.564	650.	0.483	632.	0.469
0.045	2.097	1.583	1.025	4.521	3.413	0.049	1188.	0.882	761.	0.565	651.	0.483	633.	0.470
0.042	2.001	1.512	1.022	4.520	3.415	0.046	1171.	0.869	762.	0.565	651.	0.483	633.	0.470
0.039	1.900	1.435	1.019	4.524	3.418	0.043	1152.	0.855	762.	0.566	652.	0.484	634.	0.471
0.036	1.790	1.353	1.016	4.526	3.419	0.040	1126.	0.836	763.	0.567	652.	0.484	635.	0.471
0.033	1.679	1.269	1.013	4.530	3.424	0.037	1100.	0.817	764.	0.567	653.	0.484	635.	0.472
0.029	1.569	1.186	1.009	4.528	3.423	0.033	1070.	0.795	765.	0.568	653.	0.485	636.	0.472
0.026	1.461	1.106	1.006	4.534	3.430	0.030	1041.	0.773	766.	0.569	654.	0.485	636.	0.472
0.022	1.361	1.029	1.002	4.536	3.429	0.026	1007.	0.748	767.	0.569	655.	0.486	637.	0.473
0.017	1.268	0.959	0.997	4.538	3.433	0.021	971.	0.721	767.	0.570	655.	0.486	637.	0.473
0.013	1.182	0.894	0.993	4.542	3.436	0.017	926.	0.687	768.	0.570	655.	0.487	638.	0.474
0.008	1.102	0.834	0.988	4.545	3.438	0.012	882.	0.655	769.	0.571	656.	0.487	639.	0.474
0.007	1.031	0.781	0.987	4.545	3.441	0.011	820.	0.609	770.	0.572	656.	0.487	639.	0.474
0.007	0.892	0.676	0.987	4.544	3.442	0.011	815.	0.605	772.	0.573	658.	0.488	641.	0.476



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ARO, INC.  
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NASA/RI OM9 SHUTTLE TEST.  
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GRUP	MODEL	MACH NO	PC(PSIA)	TC(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
9.	139	7.92	155.9	1345.	-29.69	59.69	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	O-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	PU-INF (LBM/FT-SEC)	FE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
99.3	0.0170	1.385	0.749	3870.	0.463E-03	0.257E-05	0.697E 06	11.29	0.0	0.50	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
			2.190	1.305	0.942	1.214	1247.	0.927	535.	0.398	507.	0.377	529.	0.394
			2.171	1.305	0.942	1.195	1247.	0.927	537.	0.399	508.	0.377	530.	0.394
			2.136	1.305	0.942	1.160	1247.	0.927	535.	0.401	509.	0.378	531.	0.395
			2.099	1.303	0.941	1.123	1247.	0.927	542.	0.403	510.	0.379	531.	0.395
			2.064	1.303	0.942	1.088	1247.	0.927	544.	0.404	511.	0.380	532.	0.396
			2.027	1.302	0.941	1.051	1247.	0.928	546.	0.406	512.	0.381	533.	0.397
			1.991	1.300	0.939	1.015	1247.	0.928	549.	0.408	513.	0.382	534.	0.397
			1.952	1.300	0.941	0.976	1250.	0.930	551.	0.410	514.	0.382	534.	0.397
			1.932	1.297	0.939	0.956	1256.	0.934	553.	0.412	515.	0.383	535.	0.398
0.947	4.512	3.338	1.927	1.286	0.939	0.951	1255.	0.933	581.	0.432	526.	0.392	539.	0.401
0.911	4.605	3.364	1.891	1.286	0.939	0.915	1255.	0.934	583.	0.434	527.	0.392	539.	0.401
0.881	4.637	3.390	1.861	1.282	0.938	0.885	1255.	0.934	585.	0.436	528.	0.393	540.	0.402
0.846	4.674	3.419	1.826	1.283	0.938	0.850	1255.	0.934	588.	0.437	529.	0.393	540.	0.402
0.810	4.719	3.456	1.790	1.281	0.938	0.814	1255.	0.934	590.	0.439	530.	0.394	540.	0.402
0.773	4.769	3.497	1.753	1.280	0.939	0.777	1255.	0.934	592.	0.440	530.	0.395	541.	0.402
0.736	4.805	3.526	1.716	1.277	0.937	0.740	1255.	0.934	594.	0.442	531.	0.395	541.	0.403
0.698	4.820	3.542	1.678	1.276	0.938	0.702	1255.	0.934	596.	0.444	532.	0.396	542.	0.403
0.661	4.830	3.552	1.641	1.275	0.938	0.665	1255.	0.934	598.	0.445	533.	0.396	542.	0.404
0.624	4.830	3.554	1.604	1.274	0.937	0.628	1255.	0.934	601.	0.447	534.	0.397	543.	0.404
0.587	4.791	3.529	1.567	1.272	0.937	0.591	1255.	0.934	603.	0.448	535.	0.398	544.	0.405
0.550	4.753	3.508	1.530	1.271	0.938	0.554	1255.	0.934	605.	0.450	535.	0.398	545.	0.405
0.513	4.721	3.487	1.493	1.270	0.938	0.517	1256.	0.934	607.	0.451	536.	0.399	546.	0.406
0.475	4.680	3.457	1.455	1.269	0.937	0.479	1255.	0.935	609.	0.453	537.	0.400	547.	0.407
0.438	4.629	3.421	1.418	1.266	0.936	0.442	1256.	0.935	611.	0.455	538.	0.401	547.	0.407
0.401	4.569	3.382	1.381	1.266	0.937	0.405	1256.	0.936	613.	0.456	539.	0.401	548.	0.408
0.364	4.503	3.335	1.344	1.265	0.937	0.368	1257.	0.936	615.	0.458	539.	0.402	548.	0.408
0.327	4.427	3.281	1.307	1.266	0.938	0.331	1257.	0.936	616.	0.459	540.	0.402	549.	0.409
0.291	4.343	3.221	1.271	1.263	0.937	0.295	1258.	0.936	618.	0.460	542.	0.403	550.	0.410
0.254	4.245	3.152	1.234	1.262	0.937	0.258	1259.	0.937	620.	0.462	543.	0.405	551.	0.410
0.221	4.124	3.060	1.201	1.263	0.937	0.225	1261.	0.939	622.	0.463	545.	0.405	552.	0.411
0.209	4.015	2.983	1.189	1.263	0.938	0.213	1261.	0.939	624.	0.465	545.	0.406	552.	0.411
0.199	3.924	2.916	1.179	1.261	0.937	0.203	1261.	0.939	626.	0.466	547.	0.407	553.	0.412
0.188	3.838	2.855	1.168	1.259	0.937	0.192	1262.	0.940	628.	0.467	547.	0.408	553.	0.412
0.183	3.765	2.803	1.163	1.258	0.937	0.187	1263.	0.940	629.	0.469	548.	0.408	554.	0.413
0.178	3.702	2.758	1.158	1.259	0.938	0.182	1263.	0.941	631.	0.470	549.	0.408	555.	0.413
0.175	3.644	2.715	1.155	1.255	0.935	0.179	1264.	0.941	633.	0.471	549.	0.409	555.	0.413
0.170	3.594	2.683	1.150	1.257	0.938	0.174	1264.	0.941	635.	0.472	550.	0.410	556.	0.414
0.166	3.544	2.645	1.146	1.257	0.938	0.170	1265.	0.942	636.	0.474	551.	0.410	556.	0.414
0.162	3.497	2.608	1.142	1.258	0.938	0.166	1265.	0.942	638.	0.475	552.	0.411	556.	0.414
0.158	3.449	2.571	1.138	1.257	0.937	0.162	1265.	0.942	640.	0.476	552.	0.411	557.	0.415
0.154	3.409	2.539	1.134	1.260	0.939	0.158	1265.	0.942	641.	0.477	553.	0.412	557.	0.415
0.150	3.363	2.504	1.130	1.258	0.937	0.154	1265.	0.942	643.	0.479	554.	0.412	558.	0.415

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 ARO, INC.  
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GROUP	MODEL	MACH NO	PC (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
9.	139	7.92	151.3	1343.	-29.67	59.67	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RMO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
99.1	0.0165	1.344	0.727	3867.	0.450E-03	0.257E-05	0.678E 06	11.29	0.0	0.50	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.145	3.320	2.470	1.125	1.265	0.941	0.149	1266.	0.942	644.	0.480	555.	0.413	558.	0.416
0.140	3.274	2.436	1.120	1.264	0.940	0.144	1266.	0.943	646.	0.481	555.	0.413	559.	0.416
0.136	3.224	2.397	1.116	1.263	0.939	0.140	1266.	0.943	648.	0.482	556.	0.414	559.	0.417
0.132	3.175	2.358	1.112	1.263	0.938	0.136	1266.	0.943	649.	0.483	557.	0.415	560.	0.417
0.128	3.128	2.323	1.108	1.265	0.939	0.132	1267.	0.943	651.	0.485	557.	0.415	560.	0.417
0.125	3.081	2.288	1.105	1.265	0.939	0.129	1266.	0.943	652.	0.486	558.	0.416	561.	0.418
0.121	3.034	2.253	1.101	1.244	0.939	0.125	1267.	0.943	654.	0.487	559.	0.416	562.	0.418
0.118	2.988	2.217	1.098	1.266	0.939	0.122	1268.	0.944	655.	0.488	560.	0.417	562.	0.419
0.113	2.941	2.183	1.093	1.267	0.940	0.117	1268.	0.944	657.	0.489	561.	0.417	563.	0.419
0.109	2.891	2.145	1.089	1.264	0.938	0.113	1268.	0.944	658.	0.490	561.	0.418	563.	0.419
0.106	2.837	2.105	1.086	1.266	0.939	0.110	1269.	0.945	660.	0.491	562.	0.418	564.	0.420
0.102	2.784	2.066	1.082	1.266	0.939	0.106	1269.	0.945	661.	0.492	563.	0.419	564.	0.420
0.098	2.727	2.024	1.078	1.268	0.941	0.102	1269.	0.945	663.	0.493	564.	0.420	565.	0.420
0.094	2.670	1.983	1.074	1.268	0.942	0.098	1269.	0.945	664.	0.494	565.	0.420	565.	0.421
0.090	2.614	1.940	1.070	1.271	0.943	0.094	1268.	0.944	665.	0.496	565.	0.421	566.	0.421
0.088	2.560	1.901	1.068	1.274	0.946	0.092	1267.	0.944	667.	0.497	566.	0.421	566.	0.422
0.085	2.506	1.861	1.065	1.276	0.947	0.089	1266.	0.944	668.	0.498	567.	0.422	567.	0.422
0.082	2.452	1.822	1.062	1.279	0.950	0.086	1264.	0.942	670.	0.499	568.	0.423	567.	0.423
0.080	2.396	1.780	1.060	1.281	0.952	0.084	1262.	0.940	671.	0.500	569.	0.424	568.	0.423
0.077	2.340	1.740	1.057	1.285	0.955	0.081	1258.	0.937	672.	0.501	569.	0.424	568.	0.424
0.073	2.280	1.696	1.053	1.291	0.961	0.077	1253.	0.934	674.	0.502	570.	0.425	569.	0.424
0.070	2.211	1.645	1.050	1.297	0.965	0.074	1246.	0.929	675.	0.503	571.	0.425	570.	0.424
0.067	2.140	1.593	1.047	1.299	0.967	0.071	1238.	0.922	676.	0.504	572.	0.426	570.	0.425
0.064	2.063	1.537	1.044	1.308	0.974	0.068	1229.	0.916	678.	0.505	572.	0.427	571.	0.425
0.059	1.980	1.476	1.039	1.319	0.983	0.063	1216.	0.906	679.	0.506	573.	0.427	571.	0.426
0.056	1.900	1.417	1.036	1.334	0.995	0.060	1205.	0.898	680.	0.507	574.	0.428	572.	0.426
0.053	1.821	1.359	1.033	1.363	1.017	0.057	1190.	0.887	681.	0.508	575.	0.428	573.	0.427
0.050	1.741	1.300	1.030	1.387	1.035	0.054	1177.	0.877	683.	0.509	576.	0.429	573.	0.427
0.048	1.665	1.243	1.028	1.411	1.053	0.052	1162.	0.866	684.	0.510	577.	0.430	574.	0.428
0.043	1.582	1.182	1.023	1.496	1.118	0.047	1136.	0.847	685.	0.511	578.	0.431	575.	0.428
0.039	1.490	1.113	1.019	1.590	1.188	0.043	1107.	0.825	686.	0.511	579.	0.431	575.	0.429
0.036	1.400	1.046	1.016	1.696	1.267	0.040	1079.	0.804	688.	0.512	580.	0.432	576.	0.429
0.032	1.312	0.981	1.012	1.817	1.359	0.036	1051.	0.783	689.	0.513	581.	0.433	577.	0.430
0.027	1.227	0.918	1.007	1.978	1.480	0.031	1016.	0.757	690.	0.514	583.	0.435	577.	0.430
0.023	1.146	0.858	1.003	2.130	1.595	0.027	981.	0.731	691.	0.515	585.	0.436	578.	0.431
0.020	1.071	0.802	1.000	2.272	1.703	0.024	948.	0.706	692.	0.516	588.	0.438	579.	0.431
0.017	1.001	0.750	0.997	2.486	1.864	0.021	907.	0.676	693.	0.517	590.	0.439	580.	0.432
0.013	0.941	0.706	0.993	2.703	2.028	0.017	874.	0.651	695.	0.518	591.	0.441	580.	0.433
0.009	0.887	0.666	0.989	2.909	2.185	0.013	840.	0.626	696.	0.518	593.	0.442	581.	0.433
0.007	0.837	0.629	0.987	3.114	2.338	0.011	807.	0.601	697.	0.519	594.	0.443	582.	0.434
0.007	0.753	0.567	0.987	3.137	2.359	0.011	796.	0.593	699.	0.521	597.	0.445	583.	0.435

ORIGINAL PAGE IS  
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ARO, INC.  
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GRUP 10.	MODEL 139	MACH NO. 7.92	PG(PSIA) 153.4	TO(DEG R) 1338.	ALPHA-MODEL 24.99	ALPHA-SECTOR 5.01	ALPHA-PREBEND 30.00	ROLL-MODEL 180.00	YAW 0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	MMU-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.8	0.0168	1.363	0.737	3860.	0.458E-03	0.256E-05	0.692E 06	9.03	0.0	0.40	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	TT2 (IN)	TT2/TO (DEG R)	TT1 (DEG R)	TT1/TO	TT2 (DEG R)	TT2/TO	TT3 (DEG R)	TT3/TO	
1.214	1.006	0.738	2.194	1.282	0.941	1.218	1240.	0.927	539.	0.403	523.	0.391	541.	0.404
1.195	1.002	0.736	2.175	1.281	0.941	1.199	1239.	0.926	541.	0.405	524.	0.392	543.	0.406
1.161	1.003	0.737	2.141	1.281	0.942	1.165	1239.	0.927	544.	0.407	525.	0.393	545.	0.408
1.128	1.000	0.735	2.108	1.280	0.942	1.132	1239.	0.927	546.	0.408	526.	0.393	546.	0.408
1.093	0.997	0.733	2.073	1.277	0.940	1.097	1239.	0.926	548.	0.410	527.	0.394	547.	0.409
1.058	0.997	0.735	2.038	1.278	0.942	1.062	1239.	0.927	551.	0.412	528.	0.395	546.	0.409
1.024	0.997	0.736	2.004	1.277	0.943	1.028	1239.	0.927	553.	0.414	528.	0.395	548.	0.410
0.987	0.994	0.733	1.967	1.275	0.941	0.991	1239.	0.927	556.	0.416	529.	0.396	551.	0.412
0.952	0.995	0.735	1.932	1.273	0.941	0.956	1239.	0.926	558.	0.417	529.	0.396	552.	0.413
0.917	0.994	0.734	1.897	1.274	0.942	0.921	1238.	0.926	560.	0.419	530.	0.396	553.	0.413
0.885	1.217	0.901	1.865	1.273	0.943	0.889	1241.	0.928	563.	0.421	531.	0.397	552.	0.413
0.877	3.805	2.653	1.857	1.257	0.943	0.881	1245.	0.932	601.	0.450	545.	0.408	562.	0.420
0.842	4.086	3.064	1.822	1.256	0.942	0.846	1246.	0.933	603.	0.451	546.	0.408	562.	0.421
0.808	4.267	3.202	1.788	1.255	0.942	0.812	1246.	0.933	605.	0.453	547.	0.409	563.	0.421
0.773	4.368	3.282	1.753	1.255	0.943	0.777	1246.	0.933	607.	0.454	548.	0.410	564.	0.422
0.738	4.405	3.312	1.718	1.253	0.943	0.742	1247.	0.933	609.	0.456	549.	0.411	565.	0.423
0.703	4.420	3.326	1.683	1.251	0.942	0.707	1247.	0.933	611.	0.457	551.	0.412	565.	0.423
0.667	4.432	3.337	1.647	1.252	0.943	0.671	1247.	0.934	613.	0.459	552.	0.413	566.	0.424
0.632	4.438	3.344	1.612	1.250	0.942	0.636	1247.	0.933	615.	0.460	553.	0.414	567.	0.424
0.597	4.430	3.340	1.577	1.248	0.941	0.601	1247.	0.933	617.	0.462	555.	0.415	570.	0.426
0.562	4.403	3.322	1.542	1.247	0.941	0.566	1247.	0.933	619.	0.463	556.	0.416	571.	0.428
0.528	4.367	3.297	1.508	1.246	0.941	0.532	1247.	0.934	621.	0.465	557.	0.417	571.	0.426
0.493	4.326	3.266	1.473	1.247	0.942	0.497	1248.	0.934	623.	0.466	557.	0.417	572.	0.428
0.457	4.280	3.233	1.437	1.245	0.941	0.461	1248.	0.934	625.	0.467	558.	0.417	572.	0.428
0.422	4.227	3.196	1.402	1.241	0.938	0.426	1248.	0.934	626.	0.469	558.	0.418	573.	0.429
0.387	4.173	3.159	1.367	1.241	0.939	0.391	1248.	0.934	628.	0.470	559.	0.418	575.	0.430
0.352	4.110	3.113	1.332	1.241	0.940	0.356	1249.	0.935	630.	0.472	559.	0.419	576.	0.431
0.317	4.037	3.060	1.297	1.241	0.941	0.321	1249.	0.935	632.	0.473	560.	0.419	576.	0.431
0.282	3.954	3.002	1.262	1.238	0.940	0.286	1249.	0.935	633.	0.474	560.	0.419	576.	0.431
0.246	3.857	2.928	1.226	1.236	0.939	0.250	1251.	0.936	635.	0.475	561.	0.420	576.	0.431
			1.203	1.235	0.939	0.227	1252.	0.938	637.	0.477	561.	0.421	577.	0.432
			1.193	1.235	0.940	0.217	1252.	0.938	639.	0.478	562.	0.421	577.	0.433
			1.184	1.233	0.938	0.208	1253.	0.938	640.	0.480	563.	0.422	578.	0.433
0.200	3.484	2.655	1.160	1.232	0.939	0.204	1253.	0.939	642.	0.481	564.	0.423	579.	0.434
0.197	3.434	2.619	1.177	1.232	0.940	0.201	1253.	0.939	644.	0.482	565.	0.423	580.	0.434
0.193	3.391	2.588	1.173	1.231	0.940	0.197	1253.	0.939	645.	0.483	566.	0.424	580.	0.435
0.191	3.358	2.564	1.171	1.231	0.940	0.195	1253.	0.939	647.	0.484	567.	0.425	581.	0.435
0.188	3.328	2.543	1.168	1.231	0.941	0.192	1254.	0.939	648.	0.486	568.	0.425	581.	0.436
0.185	3.298	2.522	1.165	1.228	0.939	0.189	1254.	0.939	650.	0.487	569.	0.426	582.	0.436
0.183	3.273	2.505	1.163	1.229	0.941	0.187	1254.	0.939	651.	0.488	570.	0.427	583.	0.437
0.181	3.249	2.490	1.161	1.227	0.941	0.185	1254.	0.939	653.	0.489	571.	0.427	583.	0.437
0.179	3.222	2.469	1.159	1.225	0.939	0.183	1254.	0.939	654.	0.490	572.	0.428	584.	0.438

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GROUP	MODEL	MACH NO.	PO.(PSIA)	TO( DEG R)	ALPHA-MODEL	ALPHA=SECTOR	ALPHA-PREBEND	ROLL=MODEL	YAW					
10.	139	7.92	146.8	1335.	25.01	4.99	30.00	180.00	0					
T-INF	P-INF	P01	U-INF	U-INF	MMO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.6	0.0160	1.303	0.704	3856.	0.439E-03	0.255E-05	0.664E 06	9.03	0.0	0.40	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.177	3.201	2.456	1.157	1.224	0.939	0.181	1254.	0.940	656.	0.491	572.	0.429	585.	0.438
0.174	3.179	2.441	1.154	1.223	0.939	0.178	1254.	0.940	657.	0.492	573.	0.429	585.	0.438
0.172	3.155	2.426	1.152	1.222	0.940	0.176	1254.	0.940	659.	0.494	574.	0.430	586.	0.439
0.170	3.130	2.407	1.150	1.221	0.939	0.174	1254.	0.939	660.	0.495	575.	0.431	587.	0.439
0.167	3.108	2.393	1.147	1.220	0.939	0.171	1255.	0.940	662.	0.496	576.	0.431	587.	0.440
0.164	3.087	2.377	1.144	1.221	0.940	0.168	1255.	0.941	663.	0.497	577.	0.432	588.	0.441
0.161	3.061	2.360	1.141	1.219	0.940	0.165	1255.	0.941	665.	0.498	577.	0.433	588.	0.441
0.159	3.034	2.339	1.139	1.217	0.939	0.163	1255.	0.941	666.	0.499	578.	0.434	589.	0.441
0.156	3.009	2.321	1.136	1.218	0.940	0.160	1255.	0.941	667.	0.500	579.	0.434	589.	0.442
0.152	2.982	2.302	1.132	1.216	0.939	0.156	1256.	0.941	669.	0.501	580.	0.435	590.	0.442
0.150	2.950	2.281	1.130	1.215	0.939	0.154	1255.	0.941	670.	0.502	581.	0.435	591.	0.443
0.147	2.920	2.258	1.127	1.213	0.938	0.151	1255.	0.941	671.	0.503	582.	0.436	591.	0.443
0.143	2.890	2.237	1.123	1.213	0.939	0.147	1256.	0.942	673.	0.504	582.	0.437	591.	0.443
0.140	2.862	2.217	1.120	1.212	0.939	0.144	1256.	0.942	674.	0.505	583.	0.437	592.	0.444
0.137	2.832	2.196	1.117	1.212	0.940	0.141	1256.	0.942	675.	0.506	584.	0.438	592.	0.444
0.135	2.806	2.176	1.115	1.212	0.941	0.139	1256.	0.942	677.	0.507	585.	0.438	593.	0.444
0.132	2.778	2.156	1.112	1.210	0.940	0.136	1256.	0.942	678.	0.508	585.	0.439	593.	0.445
0.129	2.750	2.136	1.109	1.209	0.940	0.133	1257.	0.942	679.	0.509	586.	0.439	594.	0.445
0.126	2.720	2.116	1.106	1.207	0.939	0.130	1257.	0.942	680.	0.510	587.	0.440	594.	0.445
0.123	2.694	2.096	1.103	1.207	0.939	0.127	1257.	0.942	682.	0.511	588.	0.440	595.	0.445
0.120	2.667	2.078	1.100	1.208	0.941	0.124	1257.	0.942	683.	0.512	588.	0.441	595.	0.446
0.117	2.638	2.055	1.097	1.205	0.939	0.121	1257.	0.943	684.	0.513	589.	0.442	596.	0.446
0.114	2.609	2.035	1.094	1.205	0.940	0.118	1258.	0.943	685.	0.514	590.	0.442	596.	0.447
0.110	2.578	2.012	1.090	1.203	0.939	0.114	1259.	0.944	686.	0.515	590.	0.442	596.	0.447
0.107	2.548	1.990	1.087	1.204	0.940	0.111	1259.	0.944	688.	0.516	591.	0.443	597.	0.447
0.103	2.515	1.966	1.083	1.202	0.940	0.107	1259.	0.944	689.	0.516	592.	0.444	597.	0.448
0.100	2.483	1.942	1.080	1.200	0.939	0.104	1260.	0.944	690.	0.517	592.	0.444	597.	0.448
0.096	2.450	1.917	1.076	1.200	0.939	0.100	1260.	0.945	691.	0.518	593.	0.445	598.	0.448
0.092	2.416	1.893	1.072	1.200	0.940	0.096	1261.	0.945	692.	0.519	593.	0.445	598.	0.448
0.087	2.379	1.865	1.067	1.200	0.941	0.091	1261.	0.946	693.	0.520	594.	0.445	599.	0.449
0.082	2.336	1.833	1.062	1.200	0.942	0.086	1262.	0.946	695.	0.521	595.	0.446	599.	0.449
0.077	2.284	1.793	1.057	1.197	0.940	0.081	1261.	0.946	696.	0.522	596.	0.447	599.	0.450
0.074	2.228	1.750	1.054	1.197	0.941	0.078	1261.	0.946	697.	0.523	596.	0.447	600.	0.450
0.069	2.168	1.704	1.049	1.196	0.940	0.073	1258.	0.944	698.	0.524	597.	0.448	600.	0.450
0.063	2.095	1.649	1.043	1.196	0.942	0.067	1252.	0.939	699.	0.524	598.	0.448	601.	0.451
0.058	2.006	1.580	1.038	1.195	0.941	0.062	1241.	0.931	700.	0.525	599.	0.449	601.	0.451
0.053	1.909	1.504	1.033	1.192	0.939	0.057	1225.	0.919	701.	0.526	599.	0.450	602.	0.451
0.048	1.809	1.426	1.028	1.191	0.939	0.052	1208.	0.906	702.	0.527	600.	0.450	602.	0.452
0.044	1.704	1.345	1.024	1.192	0.941	0.048	1186.	0.890	703.	0.528	601.	0.451	603.	0.452
0.040	1.599	1.262	1.020	1.192	0.941	0.044	1160.	0.870	704.	0.528	601.	0.451	603.	0.452
0.037	1.445	1.180	1.017	1.193	0.942	0.041	1135.	0.851	705.	0.529	602.	0.452	603.	0.453
0.032	1.394	1.100	1.012	1.192	0.941	0.036	1106.	0.829	706.	0.530	603.	0.452	604.	0.453

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GROUP	MODEL	MACH NO	PC(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
10.	139	7.92	142.9	1333.	25.01	4.99	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MC-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.4	0.0156	1.269	0.686	3853.	0.428E-03	0.255E-05	0.647E 06	9.03	0.0	0.40	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.029	1.299	1.024	1.009	1.194	0.941	0.033	1076.	0.808	707.	0.531	604.	0.453	604.	0.453
0.025	1.210	0.952	1.005	1.198	0.943	0.029	1043.	0.783	708.	0.531	604.	0.453	605.	0.454
0.021	1.128	0.886	1.001	1.200	0.943	0.025	1010.	0.758	709.	0.532	605.	0.454	605.	0.454
0.019	1.054	0.827	0.999	1.203	0.944	0.023	977.	0.733	710.	0.533	606.	0.455	606.	0.455
0.014	0.983	0.770	0.994	1.202	0.941	0.018	943.	0.707	711.	0.534	607.	0.456	607.	0.456
0.011	0.922	0.721	0.991	1.206	0.943	0.015	903.	0.677	712.	0.534	608.	0.456	607.	0.456
0.007	0.866	0.676	0.987	1.208	0.943	0.011	861.	0.646	713.	0.535	609.	0.457	608.	0.456
0.007	0.720	0.560	0.987	1.212	0.942	0.011	837.	0.628	716.	0.538	611.	0.459	609.	0.457

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GROUP	MODEL	MACH NO.	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
11.	139	7.92	153.3	1328.	25.00	5.00	30.00	180.00	0					
T-INF	P-INF	PO1	O-INF	U-INF	HMO-INF	MO-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.0	0.0168	1.362	0.736	3846.	0.461E-03	0.254E-05	0.699E 06	6.77	0.0	0.30	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
1.238	1.000	0.734	2.218	1.277	0.938	1.242	1230.	0.926	523.	0.394	509.	0.383	537.	0.404
1.221	1.000	0.734	2.201	1.278	0.938	1.225	1230.	0.926	526.	0.396	510.	0.384	539.	0.406
1.187	1.000	0.734	2.167	1.277	0.938	1.191	1230.	0.926	528.	0.398	510.	0.384	541.	0.408
1.153	1.005	0.738	2.133	1.278	0.938	1.157	1230.	0.926	531.	0.400	510.	0.384	543.	0.409
1.118	1.001	0.735	2.098	1.276	0.938	1.122	1229.	0.926	533.	0.401	511.	0.385	546.	0.411
1.084	1.002	0.736	2.064	1.276	0.938	1.088	1230.	0.926	535.	0.403	512.	0.386	548.	0.412
1.049	1.000	0.736	2.029	1.271	0.936	1.053	1230.	0.926	538.	0.405	513.	0.386	549.	0.414
1.013	1.000	0.736	1.993	1.271	0.936	1.017	1230.	0.926	540.	0.407	514.	0.387	551.	0.415
0.977	1.001	0.739	1.957	1.270	0.937	0.981	1229.	0.926	543.	0.409	515.	0.388	553.	0.416
0.943	1.001	0.740	1.923	1.269	0.938	0.947	1229.	0.925	545.	0.411	516.	0.389	553.	0.417
0.910	0.997	0.738	1.890	1.264	0.936	0.914	1229.	0.925	548.	0.412	517.	0.389	553.	0.417
0.877	0.998	0.739	1.857	1.265	0.937	0.881	1229.	0.925	550.	0.414	518.	0.390	554.	0.417
0.842	0.999	0.741	1.822	1.265	0.938	0.846	1229.	0.926	553.	0.416	519.	0.391	554.	0.418
0.808	1.011	0.751	1.788	1.264	0.939	0.812	1227.	0.925	555.	0.418	521.	0.392	556.	0.419
0.791	1.832	1.362	1.771	1.260	0.937	0.795	1237.	0.932	558.	0.420	522.	0.393	558.	0.420
0.782	4.108	3.103	1.762	1.240	0.937	0.786	1238.	0.934	590.	0.445	539.	0.407	574.	0.433
0.747	4.258	3.219	1.727	1.240	0.937	0.751	1238.	0.934	592.	0.446	540.	0.408	576.	0.434
0.712	4.319	3.270	1.692	1.240	0.939	0.716	1238.	0.934	594.	0.448	541.	0.408	579.	0.437
0.677	4.325	3.279	1.657	1.238	0.938	0.681	1239.	0.934	596.	0.449	543.	0.409	581.	0.438
0.641	4.299	3.261	1.621	1.235	0.937	0.645	1238.	0.934	598.	0.451	544.	0.410	583.	0.439
0.606	4.249	3.228	1.586	1.237	0.940	0.610	1238.	0.934	600.	0.452	545.	0.411	584.	0.441
0.570	4.181	3.180	1.550	1.234	0.939	0.574	1237.	0.933	602.	0.454	547.	0.412	586.	0.442
0.535	4.097	3.120	1.515	1.231	0.938	0.539	1238.	0.933	604.	0.455	548.	0.414	586.	0.442
0.500	4.028	3.072	1.480	1.232	0.940	0.504	1238.	0.934	606.	0.457	549.	0.414	586.	0.442
0.465	3.985	3.041	1.445	1.233	0.941	0.469	1238.	0.934	608.	0.458	551.	0.415	586.	0.442
0.429	3.933	3.006	1.409	1.230	0.940	0.433	1238.	0.934	610.	0.460	552.	0.416	586.	0.442
0.394	3.868	2.958	1.374	1.230	0.941	0.398	1239.	0.934	611.	0.461	553.	0.417	586.	0.442
0.359	3.792	2.904	1.339	1.227	0.940	0.363	1239.	0.934	613.	0.463	554.	0.418	587.	0.443
0.324	3.711	2.843	1.304	1.227	0.940	0.328	1240.	0.935	615.	0.464	555.	0.418	589.	0.444
0.288	3.617	2.775	1.268	1.227	0.941	0.292	1241.	0.936	617.	0.465	555.	0.419	589.	0.444
0.253	3.499	2.687	1.233	1.223	0.939	0.257	1241.	0.936	619.	0.467	556.	0.419	591.	0.446
			1.208	1.224	0.940	0.232	1243.	0.937	621.	0.468	557.	0.420	592.	0.446
			1.199	1.222	0.940	0.223	1243.	0.938	622.	0.469	557.	0.420	592.	0.447
			1.191	1.222	0.941	0.215	1244.	0.938	624.	0.471	558.	0.421	593.	0.447
			1.188	1.219	0.940	0.212	1244.	0.938	626.	0.472	558.	0.421	594.	0.448
0.205	3.017	2.328	1.185	1.218	0.940	0.209	1244.	0.938	627.	0.473	559.	0.421	595.	0.449
0.200	2.974	2.295	1.180	1.219	0.940	0.204	1244.	0.939	629.	0.474	559.	0.422	596.	0.449
0.197	2.934	2.270	1.177	1.217	0.941	0.201	1244.	0.938	631.	0.476	560.	0.422	596.	0.450
0.193	2.898	2.244	1.173	1.215	0.941	0.197	1245.	0.939	632.	0.477	560.	0.422	597.	0.450
0.191	2.865	2.220	1.171	1.215	0.941	0.195	1245.	0.940	634.	0.479	561.	0.423	598.	0.451
0.187	2.833	2.198	1.167	1.213	0.941	0.191	1245.	0.939	636.	0.480	561.	0.424	598.	0.452
0.184	2.800	2.173	1.164	1.210	0.940	0.188	1245.	0.940	637.	0.481	562.	0.424	599.	0.452

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
11.	139	7.92	144.9	1325.	25.01	4.99	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	NU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.8	0.0158	1.286	0.695	3841.	0.437E-03	0.253E-05	0.662E 06	6.77	0.0	0.30	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.181	2.773	2.156	1.161	1.209	0.940	0.185	1245.	0.940	639.	0.482	562.	0.424	600.	0.453
0.178	2.749	2.140	1.158	1.210	0.942	0.182	1246.	0.940	640.	0.483	563.	0.425	600.	0.453
0.175	2.723	2.123	1.155	1.208	0.942	0.179	1246.	0.940	642.	0.484	563.	0.425	601.	0.454
0.171	2.694	2.102	1.151	1.204	0.939	0.175	1246.	0.940	643.	0.486	564.	0.426	602.	0.454
0.167	2.671	2.086	1.147	1.206	0.942	0.171	1246.	0.941	645.	0.487	564.	0.426	603.	0.455
0.163	2.644	2.065	1.143	1.205	0.941	0.167	1246.	0.940	646.	0.488	565.	0.426	603.	0.455
0.160	2.615	2.045	1.140	1.203	0.941	0.164	1247.	0.941	648.	0.489	565.	0.427	604.	0.456
0.155	2.589	2.029	1.135	1.202	0.941	0.159	1247.	0.941	649.	0.490	566.	0.427	605.	0.456
0.152	2.563	2.009	1.132	1.202	0.942	0.156	1247.	0.941	651.	0.491	566.	0.427	605.	0.457
0.147	2.535	1.987	1.127	1.201	0.941	0.151	1248.	0.942	652.	0.492	567.	0.428	606.	0.458
0.144	2.509	1.969	1.124	1.201	0.943	0.148	1248.	0.942	654.	0.493	567.	0.428	607.	0.458
0.140	2.483	1.949	1.120	1.200	0.942	0.144	1248.	0.942	655.	0.494	568.	0.429	608.	0.459
0.137	2.453	1.927	1.117	1.199	0.942	0.141	1249.	0.942	656.	0.495	569.	0.429	609.	0.459
0.133	2.428	1.907	1.113	1.201	0.943	0.137	1250.	0.943	658.	0.496	569.	0.429	609.	0.460
0.129	2.405	1.888	1.109	1.202	0.944	0.133	1250.	0.944	659.	0.497	569.	0.430	610.	0.461
0.124	2.383	1.865	1.104	1.205	0.944	0.128	1251.	0.944	661.	0.498	570.	0.430	611.	0.461
0.120	2.362	1.846	1.100	1.209	0.945	0.124	1252.	0.945	662.	0.500	571.	0.431	612.	0.462
0.116	2.343	1.827	1.096	1.211	0.945	0.120	1252.	0.946	663.	0.501	571.	0.431	613.	0.463
0.113	2.322	1.807	1.093	1.215	0.946	0.117	1252.	0.945	665.	0.502	572.	0.431	614.	0.463
0.111	2.300	1.786	1.091	1.216	0.945	0.115	1253.	0.946	666.	0.503	572.	0.432	615.	0.464
0.108	2.281	1.767	1.088	1.219	0.945	0.112	1253.	0.946	667.	0.504	573.	0.432	616.	0.465
0.106	2.264	1.750	1.086	1.223	0.945	0.110	1254.	0.946	668.	0.504	573.	0.433	617.	0.466
0.103	2.244	1.731	1.083	1.224	0.944	0.107	1254.	0.947	670.	0.506	574.	0.434	618.	0.467
0.100	2.225	1.712	1.080	1.226	0.943	0.104	1255.	0.948	671.	0.507	575.	0.434	619.	0.467
0.096	2.203	1.694	1.076	1.229	0.945	0.100	1255.	0.948	672.	0.508	575.	0.434	620.	0.468
0.093	2.180	1.672	1.073	1.231	0.945	0.097	1256.	0.948	674.	0.508	576.	0.434	620.	0.468
0.088	2.150	1.647	1.068	1.232	0.944	0.092	1256.	0.948	675.	0.510	576.	0.435	621.	0.469
0.085	2.115	1.619	1.065	1.233	0.943	0.089	1256.	0.949	676.	0.511	577.	0.436	622.	0.470
0.082	2.079	1.589	1.062	1.235	0.944	0.086	1256.	0.948	677.	0.511	578.	0.436	623.	0.470
0.079	2.043	1.561	1.059	1.237	0.945	0.083	1255.	0.948	678.	0.512	578.	0.437	624.	0.471
0.076	2.003	1.529	1.056	1.239	0.946	0.080	1254.	0.947	680.	0.513	579.	0.437	625.	0.472
0.072	1.958	1.493	1.052	1.239	0.944	0.076	1251.	0.945	681.	0.514	579.	0.438	625.	0.472
0.067	1.908	1.453	1.047	1.239	0.944	0.071	1246.	0.941	682.	0.515	580.	0.438	626.	0.473
0.063	1.850	1.409	1.043	1.239	0.944	0.067	1240.	0.936	683.	0.516	581.	0.439	627.	0.473
0.060	1.790	1.363	1.040	1.241	0.944	0.064	1230.	0.929	684.	0.517	581.	0.439	628.	0.474
0.056	1.719	1.307	1.036	1.240	0.943	0.060	1218.	0.920	686.	0.518	582.	0.439	628.	0.475
0.053	1.647	1.253	1.033	1.241	0.944	0.057	1204.	0.910	687.	0.519	582.	0.440	629.	0.475
0.049	1.571	1.193	1.029	1.241	0.943	0.053	1189.	0.898	688.	0.519	583.	0.440	630.	0.476
0.045	1.497	1.137	1.025	1.243	0.944	0.049	1170.	0.884	689.	0.520	583.	0.441	631.	0.476
0.040	1.420	1.078	1.020	1.243	0.943	0.044	1148.	0.867	690.	0.521	584.	0.441	631.	0.477
0.037	1.339	1.017	1.017	1.243	0.944	0.041	1122.	0.848	691.	0.522	585.	0.442	632.	0.478
0.033	1.261	0.957	1.013	1.242	0.943	0.037	1097.	0.828	692.	0.523	586.	0.442	633.	0.478

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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
11	139	7.92	148.4	1324.	25.01	4.99	30.00	180.00	0					
T-INF	P-INF	P01	O-INF	U-INF	RHO-INF	ML-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT <sup>3</sup> )	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.7	0.0162	1.317	0.712	3840.	0.448E-03	0.253E-05	0.675E 06	6.77	0.0	0.30	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/T0	TW1	TW1/T0	TW2	TW2/T0	TW3	TW3/T0
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.029	1.184	0.899	1.009	1.244	0.944	0.033	1065.	0.805	693.	0.524	586.	0.443	634.	0.479
0.025	1.108	0.841	1.005	1.243	0.943	0.029	1034.	0.781	695.	0.525	587.	0.443	634.	0.479
0.021	1.037	0.786	1.001	1.244	0.944	0.025	1001.	0.756	696.	0.525	588.	0.444	635.	0.480
0.017	0.971	0.737	0.997	1.243	0.943	0.021	973.	0.735	697.	0.526	589.	0.445	636.	0.480
0.013	0.909	0.690	0.993	1.240	0.941	0.017	942.	0.712	698.	0.527	590.	0.445	636.	0.481
0.008	0.860	0.653	0.988	1.244	0.944	0.012	905.	0.684	699.	0.528	590.	0.446	637.	0.481
0.007	0.812	0.617	0.987	1.245	0.945	0.011	871.	0.658	700.	0.529	591.	0.446	637.	0.481
0.007	0.700	0.532	0.987	1.244	0.944	0.011	859.	0.649	703.	0.531	593.	0.448	639.	0.483



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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
12.	139	7.92	150.3	1322.	24.99	5.01	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.6	0.0164	1.335	0.722	3837.	0.454E-03	0.253E-05	0.690E 06	4.52	0.0	0.20	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.991	0.986	0.738	1.971	1.256	0.941	0.995	1224.	0.926	550.	0.416	540.	0.409	577.	0.437
0.969	0.986	0.738	1.949	1.258	0.942	0.973	1223.	0.925	552.	0.418	542.	0.410	580.	0.439
0.935	0.986	0.738	1.915	1.259	0.942	0.939	1223.	0.925	555.	0.420	544.	0.411	583.	0.441
0.902	0.988	0.739	1.882	1.260	0.942	0.906	1224.	0.926	557.	0.422	546.	0.413	585.	0.442
0.868	0.988	0.738	1.848	1.260	0.941	0.872	1224.	0.926	560.	0.423	547.	0.414	587.	0.444
0.834	0.988	0.737	1.814	1.261	0.941	0.838	1224.	0.926	562.	0.425	549.	0.415	589.	0.446
0.799	0.989	0.737	1.779	1.261	0.940	0.803	1224.	0.926	565.	0.427	551.	0.417	591.	0.447
0.764	0.989	0.737	1.744	1.260	0.939	0.768	1224.	0.926	567.	0.429	553.	0.418	593.	0.449
0.729	0.989	0.736	1.709	1.262	0.940	0.733	1223.	0.925	570.	0.431	555.	0.420	595.	0.450
0.694	0.991	0.737	1.674	1.262	0.939	0.698	1223.	0.925	572.	0.433	557.	0.422	597.	0.451
0.659	0.991	0.738	1.639	1.260	0.938	0.663	1223.	0.925	575.	0.435	560.	0.423	598.	0.452
0.624	1.008	0.750	1.604	1.262	0.939	0.628	1220.	0.923	577.	0.436	561.	0.425	599.	0.453
0.600	2.026	1.508	1.580	1.261	0.939	0.604	1237.	0.935	580.	0.438	564.	0.426	601.	0.454
0.591	4.471	3.355	1.571	1.247	0.936	0.595	1237.	0.935	615.	0.465	590.	0.446	620.	0.469
0.556	4.441	3.335	1.536	1.247	0.937	0.560	1236.	0.935	617.	0.467	590.	0.447	621.	0.470
0.521	4.390	3.301	1.501	1.244	0.936	0.525	1236.	0.935	619.	0.468	591.	0.447	623.	0.471
0.486	4.334	3.259	1.466	1.246	0.937	0.490	1237.	0.936	621.	0.470	591.	0.447	624.	0.472
0.450	4.268	3.211	1.430	1.245	0.937	0.454	1237.	0.936	623.	0.472	592.	0.448	625.	0.473
0.415	4.187	3.152	1.395	1.243	0.936	0.419	1237.	0.936	625.	0.473	593.	0.449	626.	0.474
0.380	4.091	3.084	1.360	1.243	0.938	0.384	1237.	0.937	627.	0.475	592.	0.448	627.	0.474
0.345	3.968	2.994	1.325	1.241	0.937	0.349	1238.	0.937	629.	0.476	593.	0.449	628.	0.475
0.310	3.810	2.877	1.290	1.241	0.937	0.314	1239.	0.938	631.	0.478	594.	0.449	629.	0.476
0.274	3.630	2.743	1.254	1.240	0.937	0.278	1240.	0.939	633.	0.479	594.	0.450	630.	0.477
			1.219	1.242	0.939	0.243	1242.	0.940	635.	0.480	596.	0.451	631.	0.478
			1.200	1.241	0.940	0.224	1243.	0.941	637.	0.482	597.	0.452	632.	0.478
			1.191	1.239	0.939	0.215	1243.	0.941	638.	0.483	599.	0.453	633.	0.479
			1.186	1.240	0.940	0.210	1244.	0.941	640.	0.485	600.	0.454	634.	0.480
			1.182	1.238	0.939	0.206	1244.	0.941	642.	0.486	601.	0.455	635.	0.481
			1.178	1.239	0.941	0.202	1244.	0.941	644.	0.487	602.	0.456	636.	0.482
0.196	2.881	2.188	1.176	1.237	0.940	0.200	1244.	0.942	645.	0.488	603.	0.456	637.	0.482
0.192	2.849	2.167	1.172	1.236	0.940	0.196	1244.	0.942	647.	0.490	603.	0.457	638.	0.483
0.188	2.816	2.143	1.168	1.235	0.940	0.192	1245.	0.942	649.	0.491	604.	0.457	639.	0.484
0.185	2.735	2.121	1.165	1.235	0.941	0.189	1245.	0.942	650.	0.492	605.	0.458	640.	0.484
0.181	2.701	2.103	1.161	1.236	0.942	0.185	1245.	0.943	652.	0.493	606.	0.458	641.	0.485
0.178	2.736	2.084	1.158	1.236	0.942	0.182	1245.	0.943	653.	0.495	606.	0.459	642.	0.486
0.176	2.716	2.068	1.156	1.237	0.942	0.180	1246.	0.943	655.	0.496	607.	0.459	642.	0.486
0.173	2.649	2.055	1.153	1.238	0.943	0.177	1246.	0.943	657.	0.497	607.	0.460	643.	0.487
0.170	2.681	2.039	1.150	1.239	0.943	0.174	1245.	0.943	658.	0.498	608.	0.460	644.	0.488
0.167	2.664	2.027	1.147	1.238	0.942	0.171	1246.	0.943	660.	0.499	609.	0.461	645.	0.488
0.164	2.646	2.011	1.144	1.239	0.942	0.168	1246.	0.943	661.	0.501	609.	0.461	646.	0.489
0.161	2.629	1.997	1.141	1.239	0.941	0.165	1246.	0.944	663.	0.502	610.	0.462	647.	0.489
0.156	2.614	1.987	1.136	1.240	0.943	0.160	1247.	0.944	664.	0.503	611.	0.462	647.	0.490

DATE = 9-18-73  
 PROJECT NUMBER - W4353-21BA  
 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/R1 OM9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	POI(PSIA)	TO( DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
12.	139	7.92	148.2	1321.	25.01	4.99	30.00	180.00	0					
T-INF	P-INF	POI	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.5	0.0162	1.316	0.711	3835.	0.448E-03	0.252E-05	0.681E 06	4.52	0.0	0.20	22.58			
ZP1	PP1	PP1/POI	ZP2	PP2	PP2/POI	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.153	2.592	1.970	1.133	1.240	0.943	0.157	1247.	0.944	666.	0.504	612.	0.463	648.	0.491
0.153	2.579	1.961	1.133	1.244	0.946	0.157	1247.	0.944	667.	0.505	612.	0.464	649.	0.491
0.148	2.565	1.947	1.128	1.242	0.943	0.152	1247.	0.944	665.	0.506	613.	0.464	650.	0.492
0.146	2.549	1.936	1.126	1.242	0.944	0.150	1248.	0.945	670.	0.507	614.	0.465	651.	0.493
0.143	2.535	1.924	1.123	1.245	0.945	0.147	1248.	0.945	671.	0.508	615.	0.466	652.	0.494
0.140	2.519	1.911	1.120	1.243	0.943	0.144	1248.	0.945	673.	0.509	616.	0.466	653.	0.494
0.137	2.500	1.895	1.117	1.244	0.943	0.141	1248.	0.945	674.	0.510	617.	0.467	654.	0.495
0.134	2.484	1.883	1.114	1.245	0.944	0.138	1249.	0.946	676.	0.511	618.	0.468	655.	0.496
0.130	2.467	1.869	1.110	1.245	0.943	0.134	1250.	0.946	677.	0.512	619.	0.469	656.	0.496
0.126	2.447	1.853	1.106	1.247	0.944	0.130	1250.	0.946	678.	0.513	620.	0.470	657.	0.497
0.123	2.426	1.837	1.103	1.245	0.943	0.127	1251.	0.947	680.	0.514	621.	0.470	658.	0.498
0.120	2.406	1.822	1.100	1.247	0.944	0.124	1251.	0.947	681.	0.515	622.	0.471	659.	0.499
0.117	2.384	1.804	1.097	1.248	0.944	0.121	1251.	0.947	682.	0.516	622.	0.471	660.	0.499
0.114	2.361	1.785	1.094	1.247	0.943	0.118	1251.	0.947	683.	0.517	623.	0.472	660.	0.500
0.111	2.339	1.768	1.091	1.247	0.943	0.115	1252.	0.948	685.	0.518	623.	0.472	661.	0.501
0.107	2.314	1.749	1.087	1.248	0.944	0.111	1253.	0.948	686.	0.519	624.	0.472	662.	0.501
0.104	2.290	1.730	1.084	1.248	0.943	0.108	1253.	0.949	687.	0.520	624.	0.472	663.	0.502
0.101	2.260	1.706	1.081	1.247	0.942	0.105	1254.	0.949	688.	0.521	624.	0.472	664.	0.502
0.098	2.230	1.685	1.078	1.249	0.944	0.102	1254.	0.950	690.	0.522	624.	0.473	665.	0.503
0.094	2.199	1.661	1.074	1.249	0.944	0.098	1255.	0.950	691.	0.523	625.	0.473	665.	0.504
0.091	2.165	1.636	1.071	1.248	0.943	0.095	1255.	0.950	692.	0.524	625.	0.473	666.	0.504
0.088	2.132	1.611	1.068	1.250	0.945	0.092	1256.	0.951	693.	0.525	625.	0.473	667.	0.505
0.084	2.094	1.582	1.064	1.249	0.944	0.088	1256.	0.951	694.	0.526	626.	0.474	668.	0.506
0.082	2.054	1.551	1.062	1.248	0.943	0.086	1256.	0.951	695.	0.526	626.	0.474	669.	0.506
0.079	2.015	1.522	1.059	1.248	0.943	0.083	1257.	0.951	697.	0.527	627.	0.475	670.	0.507
0.079	1.983	1.497	1.059	1.248	0.943	0.083	1257.	0.952	698.	0.528	627.	0.475	671.	0.508
0.076	1.954	1.476	1.056	1.248	0.943	0.080	1257.	0.951	699.	0.529	628.	0.475	672.	0.509
0.073	1.926	1.454	1.053	1.247	0.942	0.077	1257.	0.951	700.	0.530	629.	0.476	673.	0.509
0.071	1.892	1.428	1.051	1.248	0.943	0.075	1256.	0.951	701.	0.531	629.	0.476	674.	0.510
0.066	1.859	1.405	1.046	1.250	0.944	0.070	1254.	0.949	702.	0.532	630.	0.477	674.	0.511
0.062	1.814	1.370	1.042	1.247	0.942	0.066	1251.	0.947	703.	0.532	631.	0.478	675.	0.511
0.059	1.766	1.334	1.039	1.245	0.941	0.063	1247.	0.944	704.	0.533	632.	0.478	676.	0.512
0.056	1.710	1.297	1.036	1.247	0.943	0.060	1241.	0.939	706.	0.534	633.	0.479	677.	0.513
0.053	1.661	1.255	1.033	1.247	0.943	0.057	1233.	0.933	707.	0.535	634.	0.480	678.	0.513
0.050	1.604	1.212	1.030	1.246	0.942	0.054	1224.	0.926	708.	0.536	634.	0.480	679.	0.514
0.047	1.542	1.165	1.027	1.246	0.942	0.051	1211.	0.917	709.	0.536	635.	0.481	680.	0.515
0.045	1.475	1.115	1.025	1.246	0.942	0.049	1195.	0.904	710.	0.537	636.	0.481	681.	0.515
0.041	1.409	1.066	1.021	1.244	0.941	0.045	1178.	0.892	711.	0.538	637.	0.482	682.	0.516
0.037	1.339	1.013	1.017	1.246	0.943	0.041	1158.	0.877	712.	0.539	638.	0.483	683.	0.517
0.034	1.270	0.961	1.014	1.246	0.943	0.038	1139.	0.862	713.	0.540	638.	0.483	684.	0.518
0.031	1.204	0.912	1.011	1.244	0.942	0.035	1122.	0.849	714.	0.540	639.	0.484	685.	0.518
0.028	1.138	0.861	1.008	1.244	0.941	0.032	1102.	0.835	715.	0.541	640.	0.485	685.	0.519

ORIGINAL PAGE IS  
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DATE = 9-18-73  
PROJECT NUMBER --VA353-218A  
ARO, INC.  
ARNOLD-AIR FORCE-STATION, TENN.  
NASA/RI OM9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
12.	139	7.92	148.7	1321.	25.01	4.99	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	ML-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
97.5	0.0163	1.320	0.714	3835.	0.450E-03	0.252E-05	0.683E 06	4.52	0.0	0.20	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
0.023	1.076	0.815	1.003	1.244	0.943	0.027	1073.	0.812	716.	0.542	641.	0.485	686.	0.520
0.020	1.016	0.770	1.000	1.245	0.943	0.024	1045.	0.791	717.	0.543	641.	0.485	687.	0.520
0.015	0.954	0.723	0.995	1.245	0.943	0.019	1010.	0.765	718.	0.543	642.	0.486	688.	0.521
0.011	0.898	0.680	0.991	1.245	0.943	0.015	967.	0.732	719.	0.544	643.	0.487	689.	0.521
0.007	0.849	0.643	0.987	1.246	0.944	0.011	929.	0.704	720.	0.545	644.	0.487	689.	0.522
0.007	0.752	0.570	0.987	1.245	0.943	0.011	913.	0.691	722.	0.546	645.	0.489	691.	0.523

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 PROJECT NUMBER VA353-218A  
 ARO INC;  
 ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
13.	139	7.92	150.5	1321.	25.00	5.00	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	PU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.5	0.0165	1.337	0.723	3835.	0.455E-03	0.252E-05	0.692E 06	2.26	0.0	0.10	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.967	0.999	0.747	1.947	1.000	0.748	0.971	1226.	0.928	547.	0.414	541.	0.410	584.	0.442
0.932	0.997	0.746	1.912	0.999	0.748	0.936	1225.	0.928	549.	0.416	543.	0.411	585.	0.443
0.898	0.998	0.747	1.878	1.001	0.749	0.902	1226.	0.928	551.	0.417	545.	0.412	587.	0.444
0.862	1.000	0.749	1.842	1.002	0.751	0.866	1226.	0.928	554.	0.419	546.	0.413	588.	0.445
0.827	0.998	0.748	1.807	1.000	0.749	0.831	1226.	0.928	556.	0.421	548.	0.415	590.	0.447
0.790	0.997	0.748	1.770	1.000	0.750	0.794	1226.	0.928	558.	0.423	550.	0.417	592.	0.448
0.754	0.997	0.748	1.734	1.000	0.750	0.758	1226.	0.928	561.	0.424	552.	0.418	593.	0.449
0.717	0.996	0.747	1.697	0.999	0.749	0.721	1226.	0.928	563.	0.426	554.	0.419	594.	0.450
0.681	0.996	0.748	1.661	1.001	0.751	0.685	1226.	0.928	565.	0.428	555.	0.420	596.	0.451
0.644	0.995	0.747	1.624	1.000	0.751	0.648	1226.	0.928	567.	0.429	556.	0.421	596.	0.452
0.608	0.994	0.747	1.588	1.000	0.752	0.612	1226.	0.928	570.	0.432	557.	0.422	597.	0.452
0.572	0.995	0.748	1.552	1.001	0.753	0.576	1226.	0.928	573.	0.434	558.	0.422	598.	0.452
0.535	0.992	0.746	1.515	1.000	0.752	0.539	1226.	0.928	576.	0.436	559.	0.423	599.	0.453
0.499	0.992	0.747	1.479	1.001	0.753	0.503	1226.	0.928	578.	0.437	561.	0.425	600.	0.454
0.463	0.993	0.747	1.443	0.998	0.751	0.467	1226.	0.927	580.	0.438	563.	0.426	601.	0.455
0.426	0.991	0.746	1.406	1.001	0.753	0.430	1225.	0.927	582.	0.440	565.	0.427	602.	0.455
0.389	1.181	0.869	1.369	1.001	0.754	0.393	1236.	0.935	585.	0.442	568.	0.430	603.	0.456
0.376	2.307	1.736	1.356	1.002	0.754	0.380	1247.	0.943	588.	0.445	570.	0.431	605.	0.457
0.359	4.208	3.151	1.339	1.008	0.755	0.363	1248.	0.944	613.	0.464	590.	0.446	616.	0.466
0.323	4.076	3.053	1.303	1.008	0.755	0.327	1249.	0.945	616.	0.466	591.	0.447	617.	0.466
0.286	3.901	2.922	1.266	1.009	0.756	0.290	1251.	0.946	618.	0.467	592.	0.448	617.	0.467
			1.229	1.007	0.754	0.253	1252.	0.947	619.	0.468	594.	0.449	618.	0.468
			1.218	1.008	0.755	0.242	1253.	0.948	621.	0.470	596.	0.451	619.	0.468
			1.207	1.006	0.754	0.231	1253.	0.948	623.	0.471	598.	0.452	620.	0.469
			1.197	1.007	0.755	0.221	1254.	0.948	624.	0.472	599.	0.453	621.	0.469
			1.191	1.007	0.754	0.215	1254.	0.949	626.	0.473	601.	0.454	621.	0.470
0.205	3.176	2.380	1.185	1.007	0.755	0.209	1254.	0.949	628.	0.475	602.	0.455	622.	0.471
0.199	3.130	2.347	1.179	1.005	0.754	0.203	1254.	0.949	629.	0.476	604.	0.457	623.	0.471
0.196	3.093	2.319	1.176	1.007	0.755	0.200	1254.	0.949	631.	0.477	605.	0.458	623.	0.472
0.192	3.064	2.299	1.172	1.006	0.755	0.196	1255.	0.949	632.	0.478	606.	0.459	624.	0.472
0.189	3.038	2.280	1.169	1.005	0.754	0.193	1255.	0.949	634.	0.480	608.	0.460	625.	0.473
0.185	3.011	2.261	1.165	1.004	0.754	0.189	1255.	0.950	636.	0.481	609.	0.461	625.	0.473
0.183	2.993	2.247	1.163	1.004	0.754	0.187	1256.	0.950	637.	0.482	611.	0.462	626.	0.474
0.180	2.977	2.235	1.160	1.005	0.755	0.184	1256.	0.950	639.	0.483	612.	0.463	627.	0.474
0.178	2.960	2.223	1.158	1.001	0.752	0.182	1256.	0.950	641.	0.485	614.	0.464	627.	0.474
0.175	2.943	2.211	1.155	1.001	0.752	0.179	1256.	0.950	642.	0.486	615.	0.466	628.	0.475
0.172	2.925	2.198	1.152	1.001	0.752	0.176	1256.	0.950	644.	0.487	617.	0.467	629.	0.475
0.169	2.912	2.189	1.149	1.001	0.753	0.173	1256.	0.950	646.	0.488	618.	0.468	629.	0.476
0.167	2.898	2.180	1.147	1.000	0.753	0.171	1256.	0.950	647.	0.490	620.	0.469	630.	0.477
0.164	2.880	2.169	1.144	1.000	0.753	0.168	1256.	0.950	649.	0.491	621.	0.470	631.	0.477
0.161	2.866	2.158	1.141	1.000	0.753	0.165	1256.	0.950	650.	0.492	623.	0.471	631.	0.477
0.157	2.850	2.146	1.137	0.999	0.752	0.161	1257.	0.951	652.	0.493	624.	0.472	632.	0.478

ORIGINAL PAGE IS  
OF POOR QUALITY

DATE = 9-18-73  
PROJECT NUMBER VA353-218A  
ARO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/RI OH9 SHUTTLE TEST  
PAGE = 2

GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
13.	139	7.92	149.5	1322.	25.01	4.99	30.00	180.00	0
T-INF	P-INF	PO1	O-INF	U-INF	RHO-INF	MD-INF	FE/FT	X	Y
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)
97.6	0.0163	1.327	0.717	3837.	0.452E-03	0.253E-05	0.686E 06	2.26	0.0
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	Tw1
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)
0.152	2.831	2.133	1.132	0.999	0.752	0.156	1258.	0.951	654.
0.150	2.813	2.119	1.130	1.000	0.754	0.154	1258.	0.952	655.
0.146	2.790	2.100	1.126	1.000	0.753	0.150	1258.	0.951	657.
0.142	2.766	2.084	1.122	0.999	0.753	0.146	1258.	0.951	658.
0.139	2.742	2.065	1.119	0.999	0.752	0.143	1259.	0.951	660.
0.135	2.716	2.047	1.115	1.000	0.754	0.139	1259.	0.952	661.
0.132	2.689	2.026	1.112	1.000	0.754	0.136	1259.	0.952	663.
0.128	2.661	2.004	1.108	0.998	0.752	0.132	1260.	0.952	664.
0.124	2.637	1.987	1.104	0.999	0.753	0.128	1260.	0.952	666.
0.120	2.610	1.968	1.100	1.001	0.755	0.124	1261.	0.953	667.
0.116	2.578	1.943	1.096	0.999	0.753	0.120	1261.	0.953	669.
0.113	2.550	1.923	1.093	0.998	0.753	0.117	1262.	0.954	671.
0.110	2.518	1.897	1.090	0.999	0.753	0.114	1262.	0.954	672.
0.107	2.486	1.873	1.087	0.998	0.752	0.111	1262.	0.954	674.
0.103	2.455	1.851	1.083	0.996	0.751	0.107	1263.	0.955	675.
0.100	2.425	1.830	1.080	0.996	0.752	0.104	1264.	0.955	677.
0.097	2.391	1.805	1.077	0.996	0.752	0.101	1264.	0.955	679.
0.093	2.357	1.779	1.073	0.996	0.752	0.097	1264.	0.956	680.
0.090	2.322	1.753	1.070	0.995	0.751	0.094	1265.	0.956	682.
0.086	2.287	1.726	1.066	0.997	0.752	0.090	1266.	0.957	684.
0.082	2.251	1.700	1.062	0.997	0.753	0.086	1267.	0.958	686.
0.079	2.216	1.672	1.059	0.996	0.751	0.083	1267.	0.958	687.
0.076	2.182	1.646	1.056	0.997	0.752	0.080	1268.	0.959	689.
0.072	2.145	1.619	1.052	0.997	0.753	0.076	1269.	0.959	691.
0.069	2.105	1.589	1.049	0.997	0.753	0.073	1270.	0.960	693.
0.065	2.066	1.560	1.045	0.996	0.752	0.069	1271.	0.960	695.
0.062	2.020	1.525	1.042	0.995	0.751	0.066	1272.	0.961	696.
0.059	1.985	1.500	1.039	0.996	0.753	0.063	1272.	0.962	698.
0.057	1.947	1.470	1.037	0.997	0.753	0.061	1273.	0.962	700.
0.054	1.907	1.440	1.034	0.995	0.751	0.058	1273.	0.962	702.
0.050	1.868	1.410	1.030	0.997	0.753	0.054	1274.	0.963	703.
0.047	1.827	1.379	1.027	0.997	0.753	0.051	1274.	0.963	705.
0.045	1.785	1.347	1.025	0.997	0.753	0.049	1273.	0.962	707.
0.042	1.740	1.314	1.022	0.995	0.751	0.046	1271.	0.961	708.
0.038	1.698	1.283	1.018	0.997	0.753	0.042	1267.	0.958	710.
0.034	1.651	1.246	1.014	0.999	0.754	0.038	1259.	0.952	711.
0.031	1.592	1.202	1.011	0.997	0.753	0.035	1246.	0.942	713.
0.027	1.528	1.154	1.007	0.998	0.753	0.031	1229.	0.928	714.
0.023	1.455	1.098	1.003	0.999	0.754	0.027	1203.	0.908	715.
0.020	1.368	1.032	1.000	0.998	0.753	0.024	1169.	0.883	717.
0.016	1.279	0.965	0.996	0.999	0.753	0.020	1134.	0.857	718.
0.013	1.194	0.901	0.993	0.999	0.754	0.017	1101.	0.832	720.

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GROUP	MODEL	MACH NO	PO (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-BREBEND	ROLL-MODEL	YAW					
13.	139	7.92	149.4	1324.	25.01	4.99	30.00	180.00	0					
T-INF	P-INF	PO1	O-INF	U-INF	HMO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.7	0.0163	1.326	0.717	3840.	0.451E-03	0.253E-05	0.684E 06	2.26	0.0	0.10	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	TT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
-0.010	-1.117	-0.842	-0.990	0.968	0.753	0.014	1073.	0.810	721.	0.544	669.	0.506	659.	0.498
0.007	1.046	0.789	0.967	0.999	0.754	0.011	1041.	0.786	722.	0.546	670.	0.506	659.	0.498
-0.007	-0.917	-0.691	-0.987	0.998	0.753	0.011	1038.	0.784	725.	0.548	672.	0.507	661.	0.499

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GROUP 14.	MODEL 139	MACH NO 7.92	PO(PSIA) 150.3	TO( DEG R) 1330.	ALPHA-MODEL 15.44	ALPHA-SECTOR 14.56	ALPHA-PREBEND 30.00	ROLL-MODEL 180.00	YAW 0					
T-INF (DEG R) 98.2	P-INF (PSIA) 0.0164	PO1 (PSIA) 1.334	Q-INF (PSIA) 0.721	U-INF (FT/SEC) 3848.	RHO-INF (LBM/FT3) 0.451E-03	MC-INF (LBM/FT-SEC) 0.254E-05	RE/FT (FT-1) 0.683E 06	X (IN) 6.77	Y (IN) 0.0	X/L 0.30	L (IN) 22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
1.189	1.191	0.892	2.169	1.317	0.987	1.193	1224.	0.920	514.	0.386	543.	0.409	565.	0.425
1.168	1.188	0.691	2.148	1.316	0.987	1.172	1223.	0.920	515.	0.387	544.	0.409	566.	0.425
1.134	1.185	0.890	2.114	1.315	0.988	1.138	1223.	0.920	516.	0.388	544.	0.409	566.	0.426
1.099	1.183	0.889	2.079	1.312	0.987	1.103	1223.	0.920	517.	0.389	544.	0.409	566.	0.426
1.062	1.182	0.890	2.042	1.310	0.986	1.066	1223.	0.919	518.	0.390	545.	0.410	567.	0.426
1.028	1.179	0.888	2.008	1.308	0.985	1.032	1223.	0.919	520.	0.391	546.	0.410	567.	0.426
0.993	1.174	0.885	1.973	1.306	0.984	0.997	1223.	0.920	521.	0.392	546.	0.410	567.	0.426
0.955	1.174	0.886	1.935	1.305	0.984	0.959	1223.	0.920	522.	0.393	546.	0.411	568.	0.427
0.919	1.174	0.887	1.899	1.305	0.985	0.923	1222.	0.919	524.	0.394	547.	0.411	568.	0.427
0.883	1.518	1.147	1.863	1.303	0.985	0.887	1229.	0.924	525.	0.395	547.	0.411	568.	0.427
0.866	2.457	1.857	1.846	1.303	0.985	0.870	1230.	0.925	527.	0.396	547.	0.412	568.	0.427
0.854	3.965	3.014	1.834	1.296	0.985	0.858	1231.	0.925	542.	0.407	552.	0.415	570.	0.429
0.818	3.924	2.985	1.798	1.294	0.984	0.822	1231.	0.925	543.	0.408	552.	0.415	571.	0.429
0.784	3.859	2.935	1.764	1.293	0.983	0.788	1231.	0.925	545.	0.409	553.	0.416	571.	0.429
0.748	3.785	2.879	1.728	1.292	0.983	0.752	1231.	0.925	546.	0.410	553.	0.416	571.	0.429
0.711	3.712	2.825	1.691	1.292	0.983	0.715	1231.	0.925	547.	0.412	554.	0.416	571.	0.429
0.676	3.633	2.765	1.656	1.293	0.984	0.680	1230.	0.925	549.	0.413	554.	0.416	571.	0.429
0.640	3.552	2.703	1.620	1.291	0.983	0.644	1230.	0.925	550.	0.414	554.	0.417	572.	0.430
0.604	3.472	2.644	1.584	1.290	0.982	0.608	1230.	0.924	552.	0.414	555.	0.417	572.	0.430
0.568	3.387	2.580	1.548	1.288	0.981	0.572	1230.	0.924	553.	0.415	555.	0.417	572.	0.430
0.532	3.298	2.513	1.512	1.288	0.982	0.536	1231.	0.925	554.	0.416	555.	0.417	572.	0.430
0.496	3.207	2.444	1.476	1.287	0.981	0.500	1230.	0.924	556.	0.417	555.	0.417	573.	0.430
0.460	3.106	2.365	1.440	1.285	0.979	0.464	1230.	0.924	557.	0.418	556.	0.418	573.	0.430
0.424	3.006	2.292	1.404	1.285	0.980	0.428	1231.	0.925	558.	0.419	556.	0.418	573.	0.430
0.388	2.909	2.217	1.368	1.287	0.981	0.392	1231.	0.925	560.	0.421	556.	0.418	573.	0.430
			1.332	1.288	0.982	0.356	1232.	0.926	561.	0.422	557.	0.418	573.	0.430
			1.296	1.290	0.982	0.320	1233.	0.927	562.	0.423	557.	0.419	573.	0.430
			1.272	1.291	0.984	0.296	1234.	0.927	564.	0.424	557.	0.419	573.	0.430
			1.262	1.305	0.985	0.286	1235.	0.928	565.	0.425	558.	0.419	573.	0.430
			1.257	1.311	0.984	0.281	1235.	0.928	566.	0.426	558.	0.419	573.	0.431
			1.254	1.318	0.983	0.278	1235.	0.928	568.	0.427	559.	0.420	573.	0.431
			1.251	1.319	0.980	0.275	1235.	0.927	569.	0.427	559.	0.420	573.	0.430
0.268	2.340	1.737	1.248	1.320	0.980	0.272	1234.	0.927	570.	0.428	559.	0.420	573.	0.430
0.265	2.320	1.724	1.245	1.317	0.979	0.269	1234.	0.927	572.	0.429	560.	0.420	574.	0.431
0.262	2.304	1.714	1.242	1.316	0.979	0.266	1234.	0.927	573.	0.430	560.	0.421	574.	0.431
0.260	2.290	1.706	1.240	1.314	0.979	0.264	1234.	0.927	574.	0.431	560.	0.421	574.	0.431
0.257	2.272	1.696	1.237	1.310	0.978	0.261	1234.	0.926	575.	0.432	561.	0.421	574.	0.431
0.254	2.255	1.687	1.234	1.308	0.978	0.258	1234.	0.927	577.	0.433	561.	0.422	574.	0.431
0.251	2.242	1.680	1.231	1.307	0.980	0.255	1234.	0.927	578.	0.434	562.	0.422	574.	0.431
0.248	2.230	1.674	1.228	1.304	0.979	0.252	1235.	0.927	579.	0.435	562.	0.422	574.	0.431
0.246	2.215	1.666	1.226	1.303	0.979	0.250	1235.	0.927	580.	0.436	563.	0.422	575.	0.431
0.242	2.202	1.658	1.222	1.301	0.980	0.246	1234.	0.927	582.	0.437	563.	0.423	575.	0.432

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GROUP	MODEL	MACH NO	PO (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
14.	139	7.92	149.3	1332.	15.44	14.56	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RMO-INF (LBM/FT3)	MC-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.3	0.0163	1.325	0.716	3851.	0.448E-03	0.255E-05	0.677E 06	6.77	0.0	0.30	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZH2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/T0	TW1 (DEG R)	TW1/T0	TW2 (DEG R)	TW2/T0	TW3 (DEG R)	TW3/T0
0.240	2.187	1.650	1.220	1.298	0.979	0.244	1235.	0.927	583.	0.438	563.	0.423	575.	0.432
0.237	2.172	1.639	1.217	1.297	0.979	0.241	1235.	0.927	584.	0.439	564.	0.423	575.	0.432
0.233	2.159	1.632	1.213	1.296	0.980	0.237	1235.	0.927	585.	0.440	564.	0.423	575.	0.432
0.230	2.147	1.625	1.210	1.295	0.980	0.234	1235.	0.927	587.	0.440	565.	0.424	576.	0.432
0.228	2.132	1.616	1.208	1.292	0.979	0.232	1235.	0.927	588.	0.441	565.	0.424	576.	0.432
0.225	2.119	1.608	1.205	1.293	0.981	0.229	1236.	0.928	589.	0.442	565.	0.424	576.	0.432
0.223	2.104	1.599	1.203	1.289	0.980	0.227	1236.	0.928	590.	0.443	566.	0.425	576.	0.432
0.221	2.090	1.589	1.201	1.291	0.981	0.225	1236.	0.928	591.	0.444	566.	0.425	576.	0.433
0.218	2.075	1.578	1.198	1.287	0.979	0.222	1236.	0.928	593.	0.445	567.	0.425	576.	0.433
0.214	2.062	1.570	1.194	1.290	0.980	0.218	1236.	0.928	594.	0.446	567.	0.426	577.	0.433
0.211	2.047	1.557	1.191	1.289	0.980	0.215	1237.	0.928	595.	0.447	567.	0.426	577.	0.433
0.208	2.033	1.546	1.188	1.289	0.981	0.212	1237.	0.929	596.	0.448	568.	0.426	577.	0.433
0.204	2.017	1.534	1.184	1.289	0.981	0.208	1237.	0.929	597.	0.448	568.	0.427	577.	0.433
0.203	2.000	1.520	1.183	1.290	0.981	0.207	1237.	0.929	598.	0.449	569.	0.427	577.	0.433
0.202	1.986	1.510	1.182	1.291	0.981	0.206	1237.	0.929	600.	0.450	569.	0.427	577.	0.434
0.199	1.974	1.500	1.179	1.293	0.982	0.203	1238.	0.929	601.	0.451	569.	0.427	578.	0.434
0.197	1.961	1.489	1.177	1.293	0.981	0.201	1238.	0.929	602.	0.452	570.	0.428	578.	0.434
0.194	1.949	1.479	1.174	1.295	0.982	0.198	1238.	0.929	603.	0.453	571.	0.428	578.	0.434
0.192	1.934	1.467	1.172	1.295	0.982	0.196	1238.	0.930	604.	0.454	571.	0.429	578.	0.434
0.189	1.919	1.454	1.169	1.294	0.980	0.193	1239.	0.930	605.	0.454	571.	0.429	578.	0.434
0.187	1.906	1.443	1.167	1.298	0.983	0.191	1239.	0.930	606.	0.455	571.	0.429	579.	0.434
0.183	1.892	1.432	1.163	1.299	0.983	0.187	1239.	0.930	607.	0.456	572.	0.429	579.	0.434
0.180	1.873	1.415	1.160	1.299	0.981	0.184	1240.	0.931	609.	0.457	572.	0.430	579.	0.435
0.177	1.859	1.404	1.157	1.300	0.981	0.181	1240.	0.931	610.	0.458	573.	0.430	579.	0.435
0.174	1.838	1.387	1.154	1.302	0.982	0.178	1240.	0.931	611.	0.459	573.	0.430	579.	0.435
0.170	1.818	1.371	1.150	1.301	0.981	0.174	1240.	0.931	612.	0.459	574.	0.431	579.	0.435
0.168	1.799	1.357	1.148	1.302	0.982	0.172	1241.	0.931	613.	0.460	574.	0.431	579.	0.435
0.164	1.780	1.341	1.144	1.305	0.983	0.168	1241.	0.932	614.	0.461	574.	0.431	580.	0.435
0.161	1.759	1.325	1.141	1.305	0.983	0.165	1241.	0.932	615.	0.462	574.	0.431	580.	0.435
0.158	1.735	1.307	1.138	1.306	0.983	0.162	1242.	0.932	616.	0.463	575.	0.432	580.	0.435
0.155	1.710	1.287	1.135	1.304	0.981	0.159	1242.	0.932	617.	0.463	576.	0.432	580.	0.435
0.153	1.686	1.267	1.133	1.305	0.981	0.157	1242.	0.933	618.	0.464	576.	0.432	580.	0.436
0.150	1.665	1.252	1.130	1.306	0.982	0.154	1242.	0.933	620.	0.465	576.	0.433	580.	0.436
0.147	1.643	1.235	1.127	1.307	0.982	0.151	1243.	0.933	621.	0.466	577.	0.433	581.	0.436
0.144	1.617	1.214	1.124	1.307	0.981	0.148	1244.	0.934	622.	0.467	577.	0.433	581.	0.436
0.142	1.597	1.197	1.122	1.309	0.981	0.146	1244.	0.934	623.	0.467	577.	0.433	581.	0.436
0.139	1.573	1.180	1.119	1.308	0.981	0.143	1244.	0.934	624.	0.468	578.	0.434	581.	0.436
0.137	1.549	1.161	1.117	1.308	0.980	0.141	1244.	0.934	625.	0.469	578.	0.434	581.	0.437
0.135	1.525	1.143	1.115	1.308	0.980	0.139	1244.	0.934	626.	0.470	579.	0.434	582.	0.437
0.132	1.505	1.128	1.112	1.309	0.981	0.136	1245.	0.935	627.	0.471	579.	0.435	582.	0.437
0.130	1.485	1.113	1.110	1.310	0.982	0.134	1245.	0.935	628.	0.471	579.	0.435	582.	0.437
0.127	1.463	1.096	1.107	1.309	0.981	0.131	1245.	0.935	629.	0.472	580.	0.435	582.	0.437



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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG H)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
14.	139	7.92	150.3	1332.	15.44	14.56	30.00	180.00	0					
T-INF	P-INF	PO1	O-INF	U-INF	RHO-INF	ML-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.3	0.0164	1.334	0.721	3851.	0.451E-03	0.255E-05	0.682E 06	6.77	0.0	0.30	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG H)		(DEG R)		(DEG R)		(DEG R)	
0.125	1.437	1.077	1.105	1.308	0.980	0.129	1245.	0.935	630.	0.473	580.	0.435	582.	0.437
0.122	1.419	1.063	1.102	1.310	0.981	0.126	1246.	0.936	631.	0.474	580.	0.436	583.	0.437
0.119	1.398	1.047	1.099	1.310	0.981	0.123	1246.	0.936	632.	0.474	581.	0.436	583.	0.438
0.117	1.377	1.031	1.097	1.311	0.981	0.121	1246.	0.936	633.	0.475	581.	0.436	583.	0.438
0.114	1.353	1.013	1.094	1.310	0.981	0.118	1246.	0.936	634.	0.476	582.	0.437	583.	0.438
0.112	1.331	0.996	1.092	1.310	0.981	0.116	1246.	0.936	635.	0.477	582.	0.437	583.	0.438
0.108	1.309	0.979	1.088	1.310	0.980	0.112	1246.	0.935	636.	0.477	582.	0.437	584.	0.438
0.105	1.191	0.891	1.085	1.310	0.980	0.109	1244.	0.933	643.	0.482	585.	0.439	585.	0.439
0.103	1.182	0.884	1.083	1.312	0.981	0.107	1243.	0.933	644.	0.483	585.	0.439	585.	0.439
0.100	1.168	0.873	1.080	1.312	0.981	0.104	1241.	0.931	645.	0.484	586.	0.439	585.	0.439
0.098	1.150	0.859	1.078	1.310	0.979	0.102	1238.	0.929	646.	0.484	586.	0.440	586.	0.439
0.095	1.132	0.846	1.075	1.313	0.982	0.099	1236.	0.927	647.	0.485	586.	0.440	586.	0.439
0.093	1.113	0.833	1.073	1.313	0.982	0.097	1233.	0.925	647.	0.486	587.	0.440	586.	0.440
0.090	1.093	0.817	1.070	1.314	0.983	0.094	1228.	0.921	648.	0.486	587.	0.440	586.	0.440
0.088	1.068	0.798	1.068	1.315	0.983	0.092	1222.	0.917	649.	0.487	588.	0.441	586.	0.440
0.085	1.043	0.779	1.065	1.315	0.983	0.089	1215.	0.911	650.	0.488	588.	0.441	587.	0.440
0.081	1.016	0.760	1.061	1.319	0.986	0.085	1204.	0.903	651.	0.489	588.	0.441	587.	0.440
0.079	0.989	0.738	1.059	1.323	0.988	0.083	1196.	0.898	652.	0.489	588.	0.441	587.	0.440
0.076	0.958	0.716	1.056	1.328	0.993	0.080	1187.	0.891	653.	0.490	589.	0.442	587.	0.441
0.074	0.930	0.695	1.054	1.338	1.000	0.078	1177.	0.883	654.	0.491	589.	0.442	588.	0.441
0.071	0.903	0.674	1.051	1.354	1.019	0.075	1165.	0.874	655.	0.491	590.	0.442	588.	0.441
0.068	0.875	0.654	1.048	1.401	1.047	0.072	1154.	0.865	656.	0.492	590.	0.443	588.	0.441
0.065	0.843	0.630	1.045	1.472	1.100	0.069	1139.	0.854	657.	0.493	591.	0.443	589.	0.442
0.061	0.814	0.608	1.041	1.593	1.189	0.065	1119.	0.839	658.	0.493	591.	0.443	589.	0.442
0.058	0.784	0.586	1.038	1.684	1.258	0.062	1102.	0.826	659.	0.494	591.	0.443	590.	0.442
0.055	0.755	0.564	1.035	1.808	1.349	0.059	1084.	0.813	659.	0.495	592.	0.444	590.	0.443
0.052	0.724	0.541	1.032	1.914	1.429	0.056	1066.	0.800	660.	0.495	592.	0.444	590.	0.443
0.049	0.696	0.520	1.029	2.021	1.510	0.053	1048.	0.786	661.	0.496	593.	0.445	591.	0.443
0.046	0.670	0.500	1.026	2.159	1.612	0.050	1028.	0.771	662.	0.497	593.	0.445	591.	0.443
0.043	0.642	0.479	1.023	2.290	1.709	0.047	1007.	0.756	663.	0.497	593.	0.445	591.	0.444
0.040	0.615	0.459	1.020	2.470	1.844	0.044	988.	0.741	664.	0.498	594.	0.446	592.	0.444
0.037	0.589	0.440	1.017	2.642	1.972	0.041	969.	0.727	665.	0.499	594.	0.446	592.	0.444
0.034	0.567	0.423	1.014	2.908	2.170	0.038	948.	0.711	666.	0.499	595.	0.446	592.	0.444
0.031	0.546	0.408	1.011	3.110	2.321	0.035	929.	0.697	667.	0.500	595.	0.446	592.	0.444
0.028	0.525	0.392	1.008	3.350	2.499	0.032	910.	0.683	667.	0.501	595.	0.447	593.	0.445
0.025	0.504	0.376	1.005	3.588	2.678	0.029	891.	0.668	668.	0.501	596.	0.447	593.	0.445
0.021	0.484	0.361	1.001	3.781	2.823	0.025	872.	0.654	669.	0.502	596.	0.447	593.	0.445
0.018	0.466	0.348	0.998	3.932	2.932	0.022	854.	0.641	670.	0.503	596.	0.447	593.	0.445
0.015	0.450	0.336	0.995	4.048	3.022	0.019	836.	0.627	671.	0.503	597.	0.448	594.	0.445
0.013	0.436	0.325	0.993	4.088	3.050	0.017	819.	0.615	672.	0.504	597.	0.448	594.	0.446
0.009	0.420	0.313	0.989	4.106	3.063	0.013	800.	0.600	672.	0.504	598.	0.448	594.	0.446
0.008	0.408	0.304	0.988	4.112	3.067	0.012	779.	0.584	673.	0.505	598.	0.449	594.	0.446

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
14.	139	7.92	151.0	1333.	15.44	14.56	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.4	0.0165	1.341	0.725	3853.	0.453E-03	0.255E-05	0.685E 06	6.77	0.0	0.30	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/T0	TW1	TW1/T0	TW2	TW2/T0	TW3	TW3/T0
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
-0.007	-0.330	-0.246	-0.987	4.105	3.061	0.011	748.	0.561	680.	0.510	601.	0.451	597.	0.448

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GROUP	MODEL	MACH NO	PO(PSIA)	TO( DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
15.	139	7.92	153.9	1336.	15.44	14.56	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.6	0.0168	1.367	0.739	3857.	0.460E-03	0.255E-05	0.695E 06	4.52	0.0	0.20	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
1.196	1.209	0.884	2.176	1.339	0.979	1.200	1230.	0.921	513.	0.384	542.	0.406	557.	0.417
1.177	1.207	0.883	2.157	1.339	0.979	1.181	1230.	0.921	514.	0.385	543.	0.406	558.	0.417
1.142	1.209	0.885	2.122	1.337	0.979	1.146	1230.	0.921	515.	0.386	543.	0.406	558.	0.418
1.107	1.207	0.886	2.087	1.337	0.981	1.111	1230.	0.921	517.	0.387	543.	0.406	559.	0.418
1.072	1.204	0.885	2.052	1.333	0.980	1.076	1230.	0.921	518.	0.388	544.	0.407	560.	0.419
1.037	1.204	0.887	2.017	1.330	0.980	1.041	1230.	0.921	519.	0.389	544.	0.407	560.	0.419
1.000	1.204	0.889	1.980	1.329	0.981	1.004	1230.	0.921	521.	0.390	544.	0.407	561.	0.420
0.964	1.201	0.888	1.944	1.327	0.982	0.968	1230.	0.921	522.	0.391	544.	0.407	561.	0.420
0.929	1.200	0.889	1.909	1.324	0.981	0.933	1230.	0.921	524.	0.392	544.	0.407	562.	0.420
0.893	1.198	0.889	1.873	1.323	0.982	0.897	1230.	0.921	525.	0.393	545.	0.408	562.	0.421
0.860	1.195	0.888	1.840	1.319	0.981	0.864	1230.	0.921	527.	0.394	545.	0.408	562.	0.421
0.825	1.196	0.891	1.805	1.318	0.982	0.829	1230.	0.921	528.	0.395	546.	0.409	563.	0.421
0.790	1.194	0.891	1.770	1.318	0.983	0.794	1230.	0.921	529.	0.396	546.	0.409	563.	0.421
0.754	1.190	0.889	1.734	1.313	0.981	0.758	1230.	0.921	531.	0.397	546.	0.409	563.	0.422
0.718	1.187	0.888	1.698	1.312	0.981	0.722	1230.	0.921	532.	0.398	547.	0.409	564.	0.422
0.682	1.543	1.155	1.662	1.313	0.983	0.686	1238.	0.927	534.	0.400	547.	0.410	564.	0.422
0.662	4.217	3.171	1.642	1.309	0.984	0.666	1240.	0.928	550.	0.412	553.	0.414	568.	0.425
0.627	4.160	3.132	1.607	1.307	0.984	0.631	1240.	0.928	552.	0.413	553.	0.414	568.	0.425
0.591	4.068	3.063	1.571	1.305	0.983	0.595	1240.	0.928	553.	0.414	554.	0.414	567.	0.425
0.555	3.962	2.985	1.535	1.304	0.983	0.559	1240.	0.928	554.	0.415	554.	0.415	567.	0.424
0.519	3.832	2.887	1.499	1.302	0.981	0.523	1240.	0.928	556.	0.416	555.	0.415	567.	0.424
0.483	3.691	2.783	1.463	1.303	0.982	0.487	1240.	0.928	557.	0.417	555.	0.416	567.	0.424
0.447	3.534	2.666	1.427	1.302	0.982	0.451	1240.	0.928	559.	0.418	556.	0.416	566.	0.424
0.412	3.365	2.543	1.392	1.301	0.983	0.416	1240.	0.928	560.	0.419	556.	0.416	566.	0.424
			1.356	1.301	0.983	0.380	1241.	0.929	561.	0.420	557.	0.417	566.	0.424
			1.320	1.300	0.983	0.344	1241.	0.929	563.	0.421	557.	0.417	566.	0.424
			1.284	1.298	0.982	0.308	1242.	0.929	564.	0.422	558.	0.418	566.	0.424
			1.258	1.300	0.984	0.282	1242.	0.930	566.	0.423	558.	0.418	566.	0.424
			1.253	1.297	0.983	0.277	1242.	0.930	567.	0.424	559.	0.418	566.	0.424
			1.249	1.295	0.982	0.273	1242.	0.930	568.	0.425	559.	0.419	566.	0.424
			1.246	1.294	0.982	0.270	1242.	0.930	570.	0.426	559.	0.419	566.	0.424
0.263	2.507	1.904	1.243	1.293	0.982	0.267	1242.	0.930	571.	0.427	560.	0.419	566.	0.424
0.260	2.473	1.881	1.240	1.294	0.984	0.264	1242.	0.930	572.	0.428	560.	0.419	566.	0.424
0.258	2.445	1.860	1.238	1.292	0.982	0.262	1243.	0.930	574.	0.429	561.	0.420	566.	0.424
0.255	2.422	1.844	1.235	1.290	0.982	0.259	1243.	0.930	575.	0.430	561.	0.420	566.	0.424
0.252	2.403	1.831	1.232	1.290	0.983	0.256	1243.	0.930	576.	0.431	561.	0.420	567.	0.424
0.249	2.384	1.818	1.229	1.291	0.984	0.253	1243.	0.930	577.	0.432	562.	0.421	567.	0.424
0.246	2.362	1.801	1.226	1.287	0.982	0.250	1243.	0.930	579.	0.433	562.	0.421	567.	0.424
0.244	2.344	1.789	1.224	1.287	0.982	0.248	1243.	0.930	580.	0.434	563.	0.421	567.	0.424
0.240	2.325	1.775	1.220	1.287	0.983	0.244	1243.	0.931	581.	0.435	563.	0.421	567.	0.424
0.237	2.309	1.763	1.217	1.289	0.984	0.241	1243.	0.931	582.	0.436	563.	0.421	567.	0.425
0.234	2.288	1.748	1.214	1.285	0.982	0.238	1244.	0.931	584.	0.437	564.	0.422	567.	0.425

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GROUP	MODEL	MACH NO	PO(PSIA)	TO( DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
15.	139	7.92	147.3	1336.	15.44	14.56	30.00	180.00	0
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)
98.6	0.0161	1.308	0.707	3857.	0.440E-03	0.255E-05	0.665E 06	4.52	0.0
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	Tw1
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)
0.231	2.270	1.736	1.211	1.285	0.983	0.235	1243.	0.931	585.
0.228	2.249	1.720	1.208	1.284	0.982	0.232	1244.	0.931	586.
0.224	2.228	1.706	1.204	1.284	0.983	0.228	1244.	0.931	587.
0.221	2.209	1.692	1.201	1.285	0.984	0.225	1244.	0.931	589.
0.218	2.185	1.674	1.198	1.282	0.983	0.222	1244.	0.931	590.
0.215	2.161	1.657	1.195	1.281	0.982	0.219	1245.	0.932	591.
0.209	2.135	1.638	1.189	1.282	0.984	0.213	1244.	0.931	592.
0.205	2.106	1.616	1.185	1.279	0.981	0.209	1245.	0.932	593.
0.201	2.081	1.597	1.181	1.280	0.983	0.205	1245.	0.932	594.
0.198	2.052	1.576	1.178	1.281	0.984	0.202	1246.	0.932	596.
0.195	2.024	1.555	1.175	1.281	0.984	0.199	1246.	0.932	597.
0.191	1.995	1.532	1.171	1.283	0.985	0.195	1246.	0.932	598.
0.188	1.968	1.510	1.168	1.283	0.984	0.192	1247.	0.932	599.
0.186	1.946	1.491	1.166	1.285	0.985	0.190	1247.	0.933	600.
0.182	1.922	1.472	1.162	1.288	0.986	0.186	1248.	0.933	601.
0.179	1.892	1.448	1.159	1.287	0.985	0.183	1248.	0.933	603.
0.175	1.865	1.426	1.155	1.287	0.984	0.179	1248.	0.934	604.
0.172	1.839	1.406	1.152	1.289	0.985	0.176	1249.	0.934	605.
0.169	1.812	1.383	1.149	1.292	0.986	0.173	1249.	0.934	606.
0.166	1.782	1.359	1.146	1.293	0.986	0.170	1249.	0.934	607.
0.162	1.752	1.335	1.142	1.292	0.985	0.166	1250.	0.935	608.
0.158	1.727	1.315	1.138	1.291	0.983	0.162	1250.	0.935	609.
0.155	1.697	1.293	1.135	1.294	0.986	0.159	1251.	0.935	611.
0.151	1.666	1.268	1.131	1.295	0.986	0.155	1251.	0.936	612.
0.148	1.639	1.246	1.128	1.295	0.985	0.152	1251.	0.936	613.
0.145	1.610	1.225	1.125	1.296	0.986	0.149	1252.	0.937	614.
0.141	1.582	1.203	1.121	1.299	0.988	0.145	1253.	0.937	615.
0.138	1.555	1.182	1.118	1.299	0.988	0.142	1253.	0.937	616.
0.135	1.526	1.160	1.115	1.296	0.985	0.139	1253.	0.937	617.
0.131	1.498	1.138	1.111	1.298	0.986	0.135	1254.	0.938	618.
0.127	1.471	1.117	1.107	1.298	0.985	0.131	1254.	0.938	619.
0.125	1.445	1.097	1.105	1.296	0.984	0.129	1254.	0.938	620.
0.121	1.417	1.076	1.101	1.297	0.985	0.125	1255.	0.939	621.
0.117	1.391	1.055	1.097	1.299	0.985	0.121	1256.	0.939	622.
0.113	1.367	1.037	1.093	1.301	0.987	0.117	1256.	0.939	623.
0.110	1.342	1.018	1.090	1.300	0.986	0.114	1256.	0.939	624.
0.107	1.315	0.997	1.087	1.298	0.985	0.111	1256.	0.939	626.
0.103	1.290	0.978	1.083	1.298	0.984	0.107	1255.	0.939	627.
0.099	1.268	0.961	1.079	1.300	0.985	0.103	1255.	0.938	628.
0.097	1.246	0.944	1.077	1.300	0.985	0.101	1254.	0.938	629.
0.094	1.222	0.926	1.074	1.300	0.985	0.098	1252.	0.937	630.
0.089	1.198	0.907	1.069	1.300	0.985	0.093	1250.	0.935	631.

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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
15.	139	7.92	148.7	1337.	15.44	14.56	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.7	0.0163	1.320	0.714	3859.	0.444E-03	0.256E-05	0.671E 06	4.52	0.0	0.20	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/10	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.086	1.174	0.890	1.066	1.303	0.987	0.090	1247.	0.932	632.	0.472	577.	0.432	580.	0.433
0.084	1.150	0.871	1.064	1.302	0.986	0.088	1243.	0.930	633.	0.473	578.	0.432	580.	0.434
0.080	1.122	0.850	1.060	1.299	0.984	0.084	1238.	0.926	634.	0.474	578.	0.432	580.	0.434
0.077	1.098	0.832	1.057	1.300	0.985	0.081	1232.	0.922	635.	0.475	578.	0.432	580.	0.434
0.074	1.073	0.813	1.054	1.300	0.985	0.078	1226.	0.917	636.	0.475	578.	0.433	581.	0.434
0.071	1.046	0.792	1.051	1.301	0.985	0.075	1218.	0.911	637.	0.476	579.	0.433	581.	0.435
0.068	1.017	0.770	1.048	1.300	0.984	0.072	1208.	0.904	638.	0.477	579.	0.433	581.	0.435
0.064	0.989	0.749	1.044	1.302	0.985	0.068	1197.	0.895	639.	0.478	580.	0.433	582.	0.435
0.061	0.959	0.726	1.041	1.301	0.985	0.065	1185.	0.886	640.	0.478	580.	0.434	582.	0.435
0.059	0.930	0.704	1.039	1.302	0.986	0.063	1170.	0.875	641.	0.479	580.	0.434	582.	0.436
0.055	0.898	0.680	1.035	1.301	0.985	0.059	1155.	0.864	642.	0.480	581.	0.434	583.	0.436
0.052	0.865	0.655	1.032	1.300	0.984	0.056	1141.	0.853	643.	0.481	581.	0.435	583.	0.436
0.049	0.835	0.633	1.029	1.300	0.985	0.053	1124.	0.840	644.	0.481	581.	0.435	584.	0.436
0.046	0.809	0.612	1.026	1.302	0.985	0.050	1105.	0.826	645.	0.482	582.	0.435	584.	0.437
0.042	0.774	0.586	1.022	1.300	0.984	0.046	1083.	0.810	645.	0.483	582.	0.435	584.	0.437
0.039	0.742	0.562	1.019	1.302	0.985	0.043	1060.	0.793	646.	0.483	583.	0.436	585.	0.437
0.036	0.710	0.538	1.016	1.299	0.983	0.040	1037.	0.775	647.	0.484	583.	0.436	585.	0.438
0.032	0.683	0.517	1.012	1.299	0.983	0.036	1014.	0.758	648.	0.485	583.	0.436	585.	0.438
0.029	0.655	0.496	1.009	1.302	0.985	0.033	990.	0.740	649.	0.486	584.	0.436	586.	0.438
0.025	0.622	0.471	1.005	1.298	0.983	0.029	961.	0.719	650.	0.486	584.	0.437	586.	0.438
0.022	0.599	0.454	1.002	1.301	0.985	0.026	933.	0.698	651.	0.487	584.	0.437	586.	0.439
0.018	0.573	0.434	0.998	1.299	0.984	0.022	906.	0.677	652.	0.488	585.	0.437	587.	0.439
0.016	0.547	0.415	0.996	1.298	0.983	0.020	881.	0.659	653.	0.488	585.	0.438	587.	0.439
0.012	0.524	0.397	0.992	1.298	0.983	0.016	854.	0.639	654.	0.489	586.	0.438	588.	0.440
0.008	0.506	0.383	0.988	1.300	0.985	0.012	824.	0.616	655.	0.490	586.	0.438	588.	0.440
0.007	0.464	0.352	0.987	1.297	0.983	0.011	776.	0.580	657.	0.491	587.	0.439	589.	0.440

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GROUP	MODEL	MACH NO.	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
16.	139	7.92	150.9	133%	15.42	14.58	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	O-INF (PSIA)	U-INF (FT/SEC)	HMO-INF (LBM/FT3)	MO-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.9	0.0165	1.340	0.725	3861.	0.450E-03	0.256E-05	0.680E 06	2.26	0.0	0.10	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
0.947	1.190	0.888	1.927	1.324	0.988	0.951	1231.	0.919	515.	0.385	542.	0.405	557.	0.416
0.926	1.151	0.889	1.906	1.324	0.988	0.930	1232.	0.920	516.	0.386	542.	0.405	557.	0.416
0.892	1.185	0.886	1.872	1.321	0.987	0.896	1232.	0.920	518.	0.387	543.	0.406	558.	0.417
0.859	1.183	0.886	1.839	1.320	0.981	0.863	1232.	0.920	519.	0.388	543.	0.406	558.	0.417
0.825	1.183	0.886	1.805	1.318	0.986	0.829	1232.	0.920	520.	0.389	544.	0.406	559.	0.417
0.791	1.183	0.886	1.771	1.317	0.986	0.795	1232.	0.920	522.	0.390	544.	0.407	559.	0.418
0.757	1.181	0.885	1.737	1.317	0.986	0.761	1232.	0.920	523.	0.391	545.	0.407	559.	0.418
0.723	1.181	0.886	1.703	1.315	0.986	0.727	1232.	0.920	524.	0.392	546.	0.408	560.	0.418
0.688	1.179	0.884	1.668	1.314	0.985	0.692	1233.	0.921	526.	0.393	546.	0.408	560.	0.418
0.653	1.180	0.886	1.633	1.313	0.986	0.657	1232.	0.921	527.	0.394	547.	0.409	561.	0.419
0.619	1.177	0.884	1.599	1.310	0.983	0.623	1232.	0.921	529.	0.395	548.	0.409	561.	0.419
0.584	1.176	0.884	1.564	1.311	0.985	0.588	1233.	0.921	530.	0.396	549.	0.410	562.	0.420
0.550	1.176	0.884	1.530	1.310	0.985	0.554	1232.	0.921	532.	0.397	550.	0.411	563.	0.420
0.515	1.175	0.884	1.495	1.306	0.982	0.519	1232.	0.921	533.	0.399	551.	0.412	563.	0.421
0.481	1.173	0.883	1.461	1.306	0.982	0.485	1232.	0.921	535.	0.400	552.	0.412	564.	0.421
0.446	1.174	0.884	1.426	1.305	0.982	0.450	1232.	0.921	536.	0.401	552.	0.413	564.	0.421
0.411	1.172	0.898	1.391	1.304	0.982	0.415	1229.	0.919	538.	0.402	553.	0.413	564.	0.421
0.386	2.175	1.640	1.366	1.303	0.982	0.390	1249.	0.933	539.	0.403	553.	0.413	564.	0.422
0.375	4.227	3.206	1.355	1.297	0.984	0.379	1249.	0.933	555.	0.415	561.	0.419	569.	0.425
0.340	4.099	3.107	1.320	1.296	0.982	0.344	1249.	0.934	556.	0.416	562.	0.420	570.	0.426
			1.285	1.296	0.982	0.309	1249.	0.934	558.	0.417	562.	0.420	571.	0.426
			1.255	1.293	0.980	0.279	1249.	0.934	560.	0.418	563.	0.421	571.	0.427
			1.246	1.296	0.983	0.270	1250.	0.934	561.	0.420	564.	0.421	572.	0.427
			1.244	1.296	0.982	0.268	1250.	0.934	563.	0.421	564.	0.422	572.	0.428
			1.241	1.294	0.982	0.265	1250.	0.934	565.	0.422	565.	0.422	573.	0.428
0.258	3.268	2.479	1.238	1.294	0.981	0.262	1250.	0.934	566.	0.423	565.	0.422	573.	0.429
0.256	3.225	2.446	1.236	1.295	0.982	0.260	1250.	0.934	568.	0.424	566.	0.423	574.	0.429
0.253	3.188	2.420	1.233	1.293	0.981	0.257	1250.	0.934	569.	0.425	566.	0.423	574.	0.429
0.250	3.155	2.395	1.230	1.292	0.980	0.254	1250.	0.934	571.	0.427	567.	0.424	575.	0.430
0.248	3.131	2.377	1.228	1.293	0.981	0.252	1250.	0.934	572.	0.428	567.	0.424	576.	0.430
0.246	3.105	2.359	1.226	1.293	0.982	0.250	1250.	0.934	574.	0.429	567.	0.424	576.	0.431
0.244	3.078	2.338	1.224	1.291	0.980	0.248	1250.	0.934	575.	0.430	568.	0.424	577.	0.431
0.241	3.058	2.325	1.221	1.292	0.982	0.245	1250.	0.934	577.	0.431	568.	0.425	577.	0.431
0.239	3.036	2.308	1.219	1.291	0.981	0.243	1250.	0.934	578.	0.432	568.	0.425	578.	0.432
0.237	3.014	2.293	1.217	1.290	0.981	0.241	1250.	0.934	580.	0.433	569.	0.425	578.	0.432
0.234	2.989	2.277	1.214	1.289	0.982	0.238	1250.	0.934	581.	0.434	569.	0.425	579.	0.432
0.232	2.967	2.259	1.212	1.286	0.980	0.236	1251.	0.935	583.	0.435	569.	0.426	579.	0.433
0.229	2.945	2.246	1.209	1.286	0.981	0.233	1251.	0.935	584.	0.436	570.	0.426	579.	0.433
0.227	2.918	2.227	1.207	1.288	0.983	0.231	1251.	0.935	585.	0.438	571.	0.426	580.	0.433
0.224	2.893	2.208	1.204	1.286	0.981	0.228	1251.	0.935	587.	0.439	571.	0.427	580.	0.434
0.222	2.869	2.191	1.202	1.286	0.982	0.226	1251.	0.935	588.	0.440	571.	0.427	581.	0.434
0.220	2.846	2.173	1.200	1.287	0.983	0.224	1251.	0.935	589.	0.441	572.	0.427	581.	0.435

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GROUP	MODEL	MACH	NC	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW				
16.	139	7.92		147.5	1338.	15.44	14.56	30.00	180.00	0				
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.8	0.0161	1.309	0.708	3860.	0.440E-03	0.256E-05	0.665E 06	2.26	0.0	0.10	22.58			
ZP1	PP1	PP1/PO1	Z-2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.217	2.820	2.154	1.197	1.288	0.984	0.221	1252.	0.935	591.	0.442	572.	0.428	582.	0.435
0.214	2.746	2.135	1.194	1.290	0.985	0.218	1252.	0.936	592.	0.443	573.	0.428	583.	0.435
0.212	2.771	2.114	1.192	1.286	0.982	0.216	1251.	0.935	593.	0.444	573.	0.429	583.	0.436
0.209	2.749	2.097	1.189	1.290	0.984	0.213	1252.	0.936	595.	0.444	574.	0.429	584.	0.436
0.206	2.724	2.078	1.186	1.290	0.983	0.210	1252.	0.936	596.	0.445	574.	0.429	584.	0.436
0.203	2.701	2.060	1.183	1.291	0.985	0.207	1252.	0.936	597.	0.446	574.	0.429	584.	0.437
0.201	2.676	2.039	1.181	1.292	0.985	0.205	1252.	0.936	599.	0.447	575.	0.430	585.	0.437
0.198	2.650	2.018	1.178	1.290	0.982	0.202	1252.	0.936	600.	0.448	575.	0.430	585.	0.438
0.196	2.628	2.001	1.176	1.291	0.983	0.200	1253.	0.936	601.	0.449	576.	0.430	586.	0.438
0.193	2.604	1.984	1.173	1.291	0.983	0.197	1253.	0.937	602.	0.450	576.	0.431	586.	0.438
0.189	2.582	1.965	1.169	1.293	0.984	0.193	1253.	0.937	604.	0.451	576.	0.431	587.	0.439
0.187	2.555	1.945	1.167	1.292	0.983	0.191	1253.	0.937	605.	0.452	577.	0.431	587.	0.439
0.183	2.525	1.921	1.163	1.290	0.981	0.187	1253.	0.937	606.	0.453	577.	0.431	588.	0.439
0.179	2.503	1.905	1.159	1.292	0.983	0.183	1254.	0.937	607.	0.454	577.	0.431	588.	0.440
0.177	2.480	1.887	1.157	1.293	0.984	0.181	1254.	0.937	609.	0.455	577.	0.432	589.	0.440
0.174	2.453	1.867	1.154	1.292	0.983	0.178	1254.	0.937	610.	0.456	578.	0.432	589.	0.440
0.171	2.428	1.848	1.151	1.290	0.981	0.175	1254.	0.938	611.	0.457	578.	0.432	590.	0.441
0.168	2.402	1.827	1.148	1.291	0.982	0.172	1255.	0.938	612.	0.458	579.	0.432	590.	0.441
0.166	2.374	1.807	1.146	1.292	0.983	0.170	1256.	0.938	614.	0.459	579.	0.433	591.	0.441
0.162	2.344	1.783	1.142	1.292	0.982	0.166	1256.	0.939	615.	0.459	579.	0.433	591.	0.442
0.158	2.315	1.762	1.138	1.292	0.983	0.162	1256.	0.938	616.	0.460	580.	0.433	592.	0.442
0.155	2.279	1.733	1.135	1.290	0.981	0.159	1256.	0.939	617.	0.461	580.	0.434	592.	0.442
0.152	2.247	1.709	1.132	1.292	0.983	0.156	1257.	0.939	618.	0.462	580.	0.434	592.	0.443
0.148	2.213	1.683	1.128	1.293	0.983	0.152	1257.	0.940	620.	0.463	581.	0.434	593.	0.443
0.145	2.176	1.656	1.125	1.293	0.984	0.149	1258.	0.940	621.	0.464	581.	0.434	593.	0.443
0.141	2.139	1.628	1.121	1.293	0.984	0.145	1258.	0.940	622.	0.465	582.	0.435	594.	0.444
0.138	2.104	1.601	1.118	1.291	0.982	0.142	1258.	0.940	623.	0.466	582.	0.435	594.	0.444
0.134	2.071	1.576	1.114	1.292	0.983	0.138	1259.	0.941	625.	0.467	582.	0.435	595.	0.445
0.132	2.037	1.550	1.112	1.290	0.981	0.136	1259.	0.941	626.	0.468	583.	0.435	595.	0.445
0.128	2.005	1.526	1.108	1.291	0.983	0.132	1260.	0.941	628.	0.469	583.	0.436	596.	0.445
0.125	1.970	1.500	1.105	1.290	0.982	0.129	1260.	0.941	629.	0.470	583.	0.436	596.	0.446
0.122	1.936	1.474	1.102	1.289	0.981	0.126	1260.	0.942	630.	0.471	584.	0.436	597.	0.446
0.119	1.906	1.452	1.099	1.290	0.982	0.123	1261.	0.943	632.	0.472	584.	0.436	597.	0.447
0.116	1.874	1.427	1.096	1.291	0.983	0.120	1262.	0.943	633.	0.473	584.	0.437	598.	0.447
0.113	1.844	1.404	1.093	1.291	0.983	0.117	1262.	0.943	634.	0.474	584.	0.437	599.	0.447
0.109	1.810	1.377	1.089	1.289	0.981	0.113	1262.	0.944	636.	0.475	585.	0.437	599.	0.448
0.107	1.779	1.354	1.087	1.290	0.982	0.111	1263.	0.944	637.	0.476	585.	0.437	600.	0.448
0.104	1.748	1.330	1.084	1.289	0.981	0.108	1264.	0.945	639.	0.477	585.	0.437	600.	0.449
0.100	1.720	1.310	1.080	1.290	0.982	0.104	1264.	0.945	640.	0.478	585.	0.438	601.	0.449
0.097	1.688	1.285	1.077	1.289	0.981	0.101	1265.	0.945	641.	0.479	586.	0.438	601.	0.449
0.092	1.657	1.262	1.072	1.289	0.982	0.096	1266.	0.946	643.	0.481	586.	0.438	602.	0.450
0.089	1.623	1.236	1.069	1.289	0.982	0.093	1266.	0.947	645.	0.482	587.	0.439	602.	0.450

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
16.	139	7.92	147.8	1338.	15.44	14.56	30.00	180.00	0					
T-INF	P-INF	PO1	U-INF	U-INF	RHO-INF	ML-INF	RE/FT	X	Y					
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)					
98.8	0.0162	1.312	0.709	3860.	0.441E-03	0.256E-05	0.666E 06	2.26	0.0					
X/L	L													
0.10	22.58													
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.087	1.591	1.213	1.067	1.291	0.984	0.091	1267.	0.947	646.	0.483	587.	0.439	603.	0.450
0.084	1.562	1.190	1.064	1.289	0.982	0.088	1267.	0.947	648.	0.484	587.	0.439	603.	0.451
0.081	1.533	1.168	1.061	1.290	0.983	0.085	1268.	0.948	650.	0.486	588.	0.439	604.	0.451
0.077	1.503	1.144	1.057	1.288	0.981	0.081	1269.	0.948	652.	0.487	588.	0.440	604.	0.451
0.074	1.477	1.125	1.054	1.289	0.982	0.078	1269.	0.949	654.	0.489	589.	0.440	605.	0.452
0.070	1.449	1.105	1.050	1.289	0.982	0.074	1270.	0.949	656.	0.491	589.	0.440	605.	0.452
0.068	1.426	1.086	1.048	1.290	0.982	0.072	1270.	0.949	659.	0.492	589.	0.440	606.	0.453
0.064	1.400	1.067	1.044	1.289	0.982	0.068	1270.	0.949	661.	0.494	590.	0.441	606.	0.453
0.062	1.373	1.046	1.042	1.289	0.982	0.066	1269.	0.949	663.	0.496	590.	0.441	607.	0.453
0.059	1.349	1.028	1.039	1.287	0.981	0.063	1269.	0.948	666.	0.497	590.	0.441	607.	0.454
0.056	1.325	1.010	1.036	1.289	0.982	0.060	1268.	0.947	668.	0.499	591.	0.442	608.	0.454
0.052	1.299	0.991	1.032	1.289	0.983	0.056	1264.	0.944	670.	0.501	591.	0.442	608.	0.455
0.048	1.270	0.968	1.028	1.288	0.982	0.052	1256.	0.939	672.	0.502	592.	0.442	609.	0.455
0.045	1.234	0.941	1.025	1.286	0.981	0.049	1249.	0.933	674.	0.503	592.	0.442	609.	0.455
0.042	1.201	0.916	1.022	1.288	0.982	0.046	1238.	0.926	675.	0.505	592.	0.443	610.	0.456
0.040	1.165	0.888	1.020	1.287	0.982	0.044	1227.	0.917	677.	0.506	592.	0.443	610.	0.456
0.037	1.128	0.860	1.017	1.288	0.982	0.041	1213.	0.907	678.	0.507	593.	0.443	611.	0.457
0.034	1.088	0.830	1.014	1.287	0.982	0.038	1196.	0.894	679.	0.508	593.	0.443	611.	0.457
0.032	1.046	0.798	1.012	1.286	0.981	0.036	1178.	0.880	680.	0.508	594.	0.444	612.	0.457
0.029	1.002	0.764	1.009	1.286	0.981	0.033	1155.	0.863	681.	0.509	594.	0.444	612.	0.458
0.026	0.957	0.731	1.006	1.287	0.983	0.030	1132.	0.846	683.	0.510	594.	0.444	613.	0.458
0.023	0.911	0.695	1.003	1.287	0.983	0.027	1105.	0.825	684.	0.511	594.	0.444	614.	0.459
0.020	0.863	0.659	1.000	1.284	0.980	0.024	1077.	0.805	685.	0.512	595.	0.445	614.	0.459
0.017	0.820	0.627	0.997	1.285	0.981	0.021	1045.	0.782	686.	0.513	595.	0.445	615.	0.459
0.014	0.779	0.595	0.994	1.286	0.982	0.018	1012.	0.756	687.	0.513	595.	0.445	615.	0.460
0.010	0.739	0.565	0.990	1.285	0.981	0.014	975.	0.728	688.	0.514	596.	0.445	616.	0.460
0.008	0.700	0.535	0.988	1.285	0.981	0.012	939.	0.702	689.	0.515	596.	0.446	616.	0.461
0.007	0.645	0.493	0.987	1.283	0.980	0.011	915.	0.684	691.	0.517	597.	0.446	617.	0.461



ORIGINAL PAGE IS  
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DATE = 9-18-73  
PROJECT NUMBER - VA353-218A --  
ARO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/RI 0-9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PG(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
17.	139	7.92	151.7	1339.	35.01	-5.01	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.9	0.0166	1.348	0.728	3861.	0.453E-03	0.256E-05	0.683E 06	15.81	0.0	0.70	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
			2.299	1.231	0.914	1.323	1275.	0.952	539.	0.403	505.	0.377	532.	0.397
			2.279	1.229	0.912	1.303	1275.	0.952	542.	0.405	507.	0.378	532.	0.398
			2.243	1.228	0.913	1.267	1275.	0.952	545.	0.407	508.	0.379	533.	0.398
			2.208	1.227	0.912	1.232	1275.	0.952	548.	0.409	510.	0.381	534.	0.399
			2.172	1.226	0.912	1.196	1275.	0.952	550.	0.411	511.	0.382	535.	0.399
			2.137	1.227	0.913	1.161	1275.	0.952	553.	0.413	513.	0.383	535.	0.400
			2.102	1.224	0.912	1.126	1275.	0.952	556.	0.415	515.	0.384	536.	0.401
1.084	4.168	3.107	2.064	1.224	0.913	1.088	1275.	0.952	559.	0.418	516.	0.385	538.	0.401
1.049	4.193	3.128	2.029	1.223	0.913	1.053	1275.	0.952	562.	0.420	518.	0.387	539.	0.402
1.013	4.208	3.143	1.993	1.222	0.913	1.017	1275.	0.952	565.	0.422	519.	0.388	539.	0.403
0.979	4.224	3.155	1.959	1.223	0.914	0.983	1275.	0.952	568.	0.424	520.	0.389	540.	0.403
0.943	4.236	3.166	1.923	1.222	0.914	0.947	1275.	0.952	571.	0.426	522.	0.390	541.	0.404
0.909	4.253	3.181	1.889	1.222	0.914	0.913	1275.	0.952	574.	0.429	523.	0.391	541.	0.404
0.873	4.270	3.198	1.853	1.221	0.915	0.877	1275.	0.952	577.	0.431	524.	0.392	542.	0.405
0.836	4.288	3.214	1.816	1.219	0.914	0.840	1274.	0.952	580.	0.433	526.	0.393	543.	0.405
0.800	4.306	3.227	1.780	1.219	0.914	0.804	1274.	0.952	583.	0.435	527.	0.394	543.	0.406
0.764	4.320	3.242	1.744	1.219	0.915	0.768	1274.	0.951	586.	0.437	528.	0.395	544.	0.406
0.728	4.331	3.252	1.708	1.217	0.914	0.732	1274.	0.951	589.	0.440	530.	0.396	544.	0.406
0.692	4.343	3.266	1.672	1.216	0.914	0.696	1274.	0.951	591.	0.442	531.	0.397	544.	0.406
0.656	4.359	3.280	1.636	1.217	0.916	0.660	1273.	0.951	594.	0.444	532.	0.398	544.	0.406
0.620	4.367	3.290	1.600	1.215	0.916	0.624	1274.	0.951	597.	0.446	534.	0.399	544.	0.407
0.583	4.379	3.302	1.563	1.214	0.916	0.587	1273.	0.951	600.	0.448	535.	0.400	545.	0.407
0.547	4.389	3.314	1.527	1.213	0.916	0.551	1273.	0.950	602.	0.450	536.	0.400	545.	0.407
0.511	4.406	3.329	1.491	1.210	0.914	0.515	1272.	0.950	605.	0.452	537.	0.401	545.	0.407
0.475	4.431	3.350	1.455	1.214	0.918	0.479	1273.	0.951	608.	0.454	539.	0.402	546.	0.408
0.439	4.455	3.372	1.419	1.267	0.960	0.443	1273.	0.951	610.	0.456	540.	0.403	546.	0.408
0.403	4.466	3.383	1.383	1.703	1.290	0.407	1273.	0.951	613.	0.458	541.	0.404	547.	0.408
0.368	4.459	3.380	1.348	3.171	2.403	0.372	1274.	0.951	615.	0.459	542.	0.405	547.	0.408
			1.311	4.141	3.143	0.335	1275.	0.952	618.	0.461	543.	0.406	547.	0.409
			1.294	4.134	3.138	0.318	1275.	0.952	620.	0.463	544.	0.407	548.	0.409
			1.286	4.138	3.139	0.310	1275.	0.952	623.	0.465	546.	0.408	548.	0.410
			1.262	4.139	3.140	0.306	1275.	0.952	625.	0.467	547.	0.408	549.	0.410
0.299	4.307	3.267	1.279	4.145	3.144	0.303	1276.	0.953	627.	0.469	548.	0.409	550.	0.410
0.296	4.298	3.260	1.276	4.146	3.145	0.300	1275.	0.952	630.	0.470	549.	0.410	550.	0.411
0.292	4.283	3.247	1.272	4.142	3.140	0.296	1276.	0.953	632.	0.472	550.	0.411	551.	0.411
0.289	4.276	3.243	1.269	4.146	3.145	0.293	1276.	0.953	634.	0.474	551.	0.412	551.	0.412
0.287	4.269	3.236	1.267	4.146	3.142	0.291	1276.	0.953	636.	0.475	552.	0.412	552.	0.412
0.284	4.261	3.232	1.264	4.148	3.146	0.288	1276.	0.953	639.	0.477	553.	0.413	553.	0.413
0.282	4.251	3.224	1.262	4.146	3.145	0.286	1275.	0.953	641.	0.479	555.	0.414	553.	0.413
0.278	4.243	3.218	1.258	4.149	3.147	0.282	1276.	0.953	643.	0.480	555.	0.415	554.	0.414
0.276	4.236	3.213	1.256	4.148	3.146	0.280	1276.	0.953	645.	0.482	556.	0.415	554.	0.414
0.273	4.223	3.206	1.253	4.142	3.144	0.277	1276.	0.953	647.	0.483	558.	0.416	555.	0.415

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 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/RI OF9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
17.	139	7.92	148.4	1339.	35.02	-5.02	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	HHQ-INF (LBM/FT3)	MO-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.9	0.0162	1.317	0.712	3861.	0.443E-03	0.256E-05	0.668E 06	15.81	0.0	0.70	22.58			
ZP1 (IN)	PF1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
0.270	4.215	3.199	1.250	4.146	3.147	0.274	1276.	0.953	649.	0.485	559.	0.417	556.	0.415
0.266	4.206	3.192	1.246	4.146	3.147	0.270	1276.	0.953	651.	0.486	560.	0.418	556.	0.416
0.263	4.197	3.190	1.243	4.144	3.149	0.267	1277.	0.953	653.	0.488	560.	0.419	557.	0.416
0.259	4.186	3.181	1.239	4.143	3.149	0.263	1276.	0.953	655.	0.489	562.	0.419	558.	0.417
0.257	4.172	3.171	1.237	4.140	3.147	0.261	1276.	0.953	657.	0.491	563.	0.420	559.	0.417
0.253	4.162	3.165	1.233	4.136	3.146	0.257	1277.	0.953	659.	0.492	564.	0.421	559.	0.418
0.251	4.151	3.159	1.231	4.137	3.149	0.255	1277.	0.953	661.	0.494	564.	0.422	560.	0.418
0.247	4.140	3.153	1.227	4.136	3.150	0.251	1277.	0.954	663.	0.495	565.	0.422	561.	0.419
0.244	4.127	3.143	1.224	4.136	3.150	0.248	1276.	0.953	665.	0.497	567.	0.423	562.	0.420
0.241	4.113	3.132	1.221	4.133	3.148	0.245	1277.	0.953	667.	0.498	568.	0.424	563.	0.420
0.237	4.102	3.128	1.217	4.130	3.150	0.241	1277.	0.954	668.	0.499	568.	0.424	564.	0.421
0.234	4.089	3.121	1.214	4.126	3.149	0.238	1277.	0.954	670.	0.501	569.	0.425	564.	0.421
0.231	4.078	3.114	1.211	4.125	3.151	0.235	1277.	0.954	672.	0.502	570.	0.426	565.	0.422
0.227	4.060	3.103	1.207	4.120	3.148	0.231	1277.	0.954	674.	0.503	571.	0.427	566.	0.423
0.225	4.050	3.097	1.205	4.122	3.153	0.229	1277.	0.954	675.	0.504	572.	0.427	567.	0.423
0.222	4.040	3.089	1.202	4.119	3.150	0.226	1278.	0.954	677.	0.506	573.	0.428	568.	0.424
0.218	4.025	3.080	1.198	4.117	3.151	0.222	1277.	0.955	679.	0.507	574.	0.429	569.	0.425
0.216	4.013	3.073	1.196	4.113	3.150	0.220	1277.	0.954	681.	0.509	575.	0.430	569.	0.426
0.213	4.000	3.067	1.193	4.111	3.153	0.217	1277.	0.955	682.	0.510	576.	0.430	570.	0.426
0.209	3.987	3.060	1.189	4.108	3.153	0.213	1278.	0.955	684.	0.511	577.	0.431	571.	0.427
0.205	3.976	3.051	1.185	4.106	3.151	0.209	1278.	0.955	685.	0.512	577.	0.432	572.	0.427
0.202	3.960	3.041	1.182	4.100	3.148	0.206	1277.	0.955	687.	0.513	579.	0.432	573.	0.428
0.199	3.946	3.032	1.179	4.097	3.148	0.203	1278.	0.955	688.	0.515	579.	0.433	574.	0.429
0.196	3.932	3.024	1.176	4.092	3.147	0.200	1278.	0.955	690.	0.516	580.	0.434	574.	0.429
0.193	3.919	3.018	1.173	4.095	3.153	0.197	1278.	0.955	692.	0.517	581.	0.434	575.	0.430
0.191	3.907	3.008	1.171	4.087	3.147	0.195	1278.	0.955	693.	0.518	582.	0.435	576.	0.430
0.188	3.892	3.001	1.168	4.086	3.150	0.192	1278.	0.955	695.	0.519	583.	0.436	577.	0.431
0.185	3.882	2.993	1.165	4.084	3.149	0.189	1278.	0.955	696.	0.520	584.	0.436	577.	0.432
0.183	3.869	2.985	1.163	4.082	3.150	0.187	1278.	0.955	698.	0.521	585.	0.437	578.	0.432
0.179	3.855	2.978	1.159	4.076	3.149	0.183	1278.	0.955	699.	0.522	585.	0.438	579.	0.433
0.177	3.842	2.969	1.157	4.075	3.149	0.181	1278.	0.955	700.	0.523	586.	0.438	580.	0.433
0.174	3.829	2.961	1.154	4.073	3.149	0.178	1279.	0.956	702.	0.525	587.	0.439	580.	0.434
0.170	3.815	2.951	1.150	4.071	3.149	0.174	1278.	0.955	703.	0.526	588.	0.439	581.	0.434
0.167	3.802	2.944	1.147	4.067	3.149	0.171	1279.	0.956	705.	0.527	589.	0.440	582.	0.435
0.164	3.786	2.933	1.144	4.063	3.148	0.168	1279.	0.956	706.	0.528	590.	0.441	582.	0.435
0.161	3.773	2.923	1.141	4.062	3.147	0.165	1279.	0.956	707.	0.529	590.	0.441	583.	0.436
0.157	3.759	2.914	1.137	4.064	3.151	0.161	1280.	0.957	709.	0.530	591.	0.442	584.	0.436
0.154	3.744	2.902	1.134	4.070	3.155	0.158	1280.	0.957	710.	0.531	592.	0.442	585.	0.437
0.150	3.734	2.893	1.130	4.081	3.162	0.154	1280.	0.957	711.	0.532	593.	0.443	585.	0.438
0.148	3.729	2.879	1.128	4.102	3.167	0.152	1280.	0.957	713.	0.533	594.	0.444	586.	0.438
0.145	3.732	2.866	1.125	4.130	3.172	0.149	1281.	0.958	714.	0.534	594.	0.444	587.	0.439
0.142	3.739	2.852	1.122	4.160	3.172	0.146	1282.	0.958	715.	0.535	595.	0.445	588.	0.439

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 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
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GROUP 17.	MODEL 139	MACH NO 7.92	PO(PSIA) 148.8	TO(DEG R) 1338.	ALPHA-MODEL 35.02	ALPHA-SECTOR -5.02	ALPHA-PREBEND 30.00	ROLL-MODEL 180.00	YAW 0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MC-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.8	0.0163	1.321	0.714	3860.	0.444E-03	0.256E-05	0.670E 06	15.81	0.0	0.70	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
0.139	3.748	2.838	1.119	4.188	3.170	0.143	1282.	0.958	716.	0.535	596.	0.446	588.	0.440
0.136	3.757	2.827	1.116	4.216	3.172	0.140	1282.	0.958	718.	0.536	597.	0.446	589.	0.440
0.133	3.768	2.819	1.113	4.241	3.172	0.137	1283.	0.959	719.	0.537	598.	0.447	590.	0.441
0.130	3.776	2.808	1.110	4.260	3.167	0.134	1283.	0.959	720.	0.538	598.	0.447	591.	0.442
0.126	3.780	2.796	1.106	4.284	3.169	0.130	1283.	0.959	722.	0.539	599.	0.448	592.	0.442
0.123	3.779	2.779	1.103	4.303	3.164	0.127	1284.	0.959	723.	0.540	600.	0.448	592.	0.442
0.119	3.782	2.768	1.099	4.321	3.163	0.123	1284.	0.959	724.	0.541	601.	0.449	593.	0.443
0.117	3.781	2.755	1.097	4.341	3.163	0.121	1283.	0.958	725.	0.542	602.	0.449	594.	0.444
0.115	3.778	2.746	1.095	4.349	3.160	0.119	1283.	0.959	727.	0.543	603.	0.450	595.	0.444
0.112	3.767	2.738	1.092	4.342	3.155	0.116	1283.	0.958	728.	0.544	603.	0.451	595.	0.445
0.109	3.750	2.729	1.089	4.330	3.151	0.113	1283.	0.958	729.	0.544	604.	0.451	596.	0.445
0.105	3.723	2.720	1.085	4.310	3.148	0.109	1283.	0.958	730.	0.545	605.	0.452	597.	0.446
0.103	3.669	2.709	1.083	4.293	3.152	0.107	1282.	0.958	731.	0.546	606.	0.452	597.	0.446
0.101	3.655	2.698	1.081	4.272	3.154	0.105	1282.	0.958	733.	0.547	607.	0.453	598.	0.447
0.098	3.617	2.684	1.078	4.256	3.158	0.102	1283.	0.958	734.	0.548	607.	0.453	599.	0.447
0.094	3.577	2.663	1.074	4.240	3.157	0.098	1283.	0.958	735.	0.549	608.	0.454	599.	0.448
0.091	3.538	2.645	1.071	4.227	3.159	0.095	1283.	0.958	736.	0.550	609.	0.455	600.	0.448
0.088	3.490	2.619	1.068	4.212	3.161	0.092	1282.	0.958	737.	0.550	609.	0.455	601.	0.449
0.084	3.441	2.588	1.064	4.203	3.160	0.088	1282.	0.957	738.	0.551	610.	0.456	601.	0.449
0.080	3.391	2.556	1.060	4.195	3.163	0.084	1281.	0.957	739.	0.552	611.	0.456	602.	0.450
0.076	3.332	2.521	1.056	4.188	3.168	0.080	1280.	0.956	740.	0.553	612.	0.457	603.	0.451
0.073	3.270	2.477	1.053	4.180	3.166	0.077	1277.	0.955	741.	0.554	612.	0.458	604.	0.451
0.069	3.207	2.435	1.049	4.172	3.167	0.073	1274.	0.952	742.	0.555	613.	0.458	604.	0.452
0.065	3.136	2.383	1.045	4.170	3.169	0.069	1268.	0.948	743.	0.556	614.	0.459	605.	0.452
0.061	3.043	2.317	1.041	4.164	3.171	0.065	1259.	0.941	744.	0.556	614.	0.459	606.	0.453
0.057	2.937	2.240	1.037	4.156	3.169	0.061	1244.	0.930	745.	0.557	615.	0.460	606.	0.453
0.052	2.808	2.146	1.032	4.150	3.171	0.056	1222.	0.913	746.	0.558	616.	0.460	607.	0.454
0.047	2.658	2.034	1.027	4.150	3.176	0.051	1196.	0.894	748.	0.559	617.	0.461	608.	0.454
0.042	2.503	1.917	1.022	4.150	3.178	0.046	1164.	0.870	748.	0.559	617.	0.461	608.	0.455
0.038	2.335	1.769	1.018	4.148	3.178	0.042	1126.	0.842	749.	0.560	618.	0.462	609.	0.455
0.033	2.155	1.652	1.013	4.148	3.180	0.037	1083.	0.809	750.	0.561	619.	0.462	610.	0.456
0.029	1.979	1.517	1.009	4.152	3.183	0.033	1043.	0.779	751.	0.562	619.	0.463	610.	0.456
0.026	1.818	1.393	1.006	4.151	3.180	0.030	1007.	0.753	752.	0.562	620.	0.463	611.	0.457
0.022	1.670	1.279	1.002	4.162	3.189	0.026	968.	0.723	753.	0.563	621.	0.464	612.	0.457
0.017	1.534	1.174	0.997	4.165	3.189	0.021	925.	0.691	754.	0.564	622.	0.465	613.	0.458
0.013	1.411	1.080	0.993	4.172	3.192	0.017	876.	0.655	755.	0.564	622.	0.465	613.	0.458
0.007	1.299	0.993	0.987	4.178	3.193	0.011	799.	0.597	756.	0.565	623.	0.465	614.	0.459
0.007	1.202	0.917	0.987	4.189	3.194	0.011	755.	0.564	757.	0.566	624.	0.466	615.	0.460
0.007	1.024	0.779	0.987	4.201	3.195	0.011	744.	0.556	759.	0.568	625.	0.467	617.	0.461

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 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PO (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
18.	139	7.92	150.0	1338.	35.06	-5.06	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (F.T/SEC)	RHO-INF (LBM/FT3)	PL-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
58.8	0.0164	1.333	0.720	3860.	0.448E-03	0.256E-05	0.676E 06	13.55	0.0	0.60	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	TT2 (IN)	TT2 (DEG R)	TT2/T0	Tw1 (DEG R)	Tw1/T0	Tw2 (DEG R)	Tw2/T0	Tw3 (DEG R)	Tw3/T0
			2.262	1.214	0.911	1.286	1251.	0.935	562.	0.420	538.	0.402	553.	0.413
			2.244	1.212	0.911	1.268	1250.	0.934	565.	0.422	540.	0.403	554.	0.414
			2.210	1.214	0.913	1.234	1251.	0.935	568.	0.424	541.	0.404	556.	0.416
1.195	1.413	1.064	2.175	1.211	0.912	1.199	1272.	0.950	571.	0.426	543.	0.405	559.	0.418
1.180	2.351	1.770	2.160	1.211	0.912	1.184	1274.	0.952	574.	0.429	544.	0.406	560.	0.419
1.170	4.012	3.047	2.150	1.198	0.910	1.174	1274.	0.952	604.	0.451	557.	0.416	572.	0.428
1.135	4.038	3.069	2.115	1.199	0.912	1.139	1275.	0.953	607.	0.454	558.	0.417	573.	0.428
1.099	4.063	3.088	2.079	1.200	0.912	1.103	1274.	0.952	610.	0.456	559.	0.418	572.	0.427
1.064	4.045	3.107	2.044	1.198	0.911	1.068	1274.	0.952	613.	0.458	560.	0.419	571.	0.427
1.028	4.108	3.125	2.008	1.198	0.911	1.032	1274.	0.952	616.	0.460	562.	0.420	571.	0.427
0.992	4.132	3.145	1.972	1.194	0.909	0.996	1274.	0.952	618.	0.462	563.	0.421	571.	0.427
0.958	4.158	3.167	1.938	1.194	0.910	0.962	1274.	0.952	621.	0.464	564.	0.421	572.	0.427
0.928	4.177	3.181	1.908	1.195	0.910	0.932	1274.	0.952	624.	0.466	565.	0.422	573.	0.428
0.893	4.190	3.193	1.873	1.189	0.906	0.897	1274.	0.952	627.	0.468	566.	0.423	574.	0.429
0.858	4.203	3.207	1.838	1.190	0.908	0.862	1274.	0.952	629.	0.470	567.	0.424	574.	0.429
0.822	4.217	3.220	1.802	1.188	0.908	0.826	1274.	0.952	632.	0.472	568.	0.424	575.	0.429
0.787	4.228	3.231	1.767	1.187	0.907	0.791	1274.	0.952	635.	0.474	569.	0.425	575.	0.430
0.751	4.243	3.245	1.731	1.188	0.908	0.755	1274.	0.952	637.	0.476	570.	0.426	576.	0.430
0.716	4.259	3.259	1.696	1.187	0.908	0.720	1273.	0.952	640.	0.478	571.	0.427	577.	0.431
0.680	4.274	3.275	1.660	1.185	0.908	0.684	1273.	0.952	642.	0.480	572.	0.428	578.	0.432
0.645	4.292	3.291	1.625	1.183	0.907	0.649	1273.	0.951	645.	0.482	573.	0.428	578.	0.432
0.609	4.307	3.305	1.589	1.183	0.908	0.613	1273.	0.951	647.	0.483	574.	0.429	578.	0.432
0.574	4.330	3.325	1.554	1.182	0.907	0.578	1272.	0.951	649.	0.485	575.	0.430	578.	0.432
0.538	4.365	3.354	1.518	1.178	0.905	0.542	1272.	0.951	652.	0.487	576.	0.431	578.	0.432
0.502	4.401	3.386	1.482	1.179	0.907	0.506	1272.	0.951	654.	0.489	577.	0.431	579.	0.432
0.466	4.424	3.401	1.446	1.179	0.907	0.470	1273.	0.952	656.	0.490	578.	0.432	579.	0.433
0.431	4.428	3.405	1.411	1.181	0.908	0.435	1273.	0.952	658.	0.492	579.	0.433	579.	0.433
0.395	4.402	3.385	1.375	1.181	0.908	0.399	1274.	0.952	660.	0.494	580.	0.434	580.	0.433
0.360	4.357	3.348	1.340	1.181	0.907	0.364	1275.	0.953	663.	0.495	581.	0.434	580.	0.434
			1.305	1.182	0.908	0.324	1275.	0.953	665.	0.497	582.	0.435	581.	0.434
			1.269	1.194	0.917	0.293	1276.	0.954	667.	0.498	583.	0.436	582.	0.435
			1.249	1.237	0.950	0.273	1277.	0.954	669.	0.500	584.	0.436	583.	0.436
			1.240	1.262	0.969	0.264	1277.	0.954	671.	0.501	585.	0.437	584.	0.437
			1.233	1.312	1.007	0.257	1278.	0.955	673.	0.503	586.	0.438	586.	0.438
			1.230	1.339	1.028	0.254	1278.	0.955	675.	0.504	586.	0.438	587.	0.438
0.247	4.000	3.069	1.227	1.370	1.051	0.251	1278.	0.955	677.	0.506	587.	0.439	588.	0.439
0.244	3.985	3.056	1.224	1.427	1.094	0.248	1278.	0.955	679.	0.507	588.	0.440	589.	0.440
0.241	3.972	3.046	1.221	1.494	1.145	0.245	1278.	0.955	681.	0.509	589.	0.440	590.	0.441
0.239	3.964	3.040	1.219	1.576	1.209	0.243	1278.	0.955	683.	0.510	590.	0.441	591.	0.441
0.236	3.954	3.030	1.216	1.674	1.282	0.240	1278.	0.955	684.	0.512	591.	0.442	592.	0.442
0.233	3.944	3.024	1.213	1.779	1.364	0.237	1278.	0.955	686.	0.513	592.	0.442	593.	0.443
0.229	3.935	3.017	1.209	1.876	1.438	0.233	1279.	0.956	688.	0.514	593.	0.443	594.	0.444

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 ARJ, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
18.	139	7.92	146.9	1338.	35.07	-5.07	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y					
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)					
98.8	0.0161	1.304	0.705	3860.	0.438E-03	0.256E-05	0.662E 06	13.55	0.0					
X/L	L													
(IN)	(IN)													
0.60	22.58													
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.226	3.927	3.011	1.206	1.993	1.528	0.230	1279.	0.956	690.	0.516	593.	0.444	594.	0.444
0.224	3.917	3.004	1.204	2.099	1.610	0.228	1278.	0.955	692.	0.517	594.	0.444	595.	0.445
0.222	3.908	2.997	1.202	2.199	1.686	0.226	1278.	0.955	693.	0.518	595.	0.445	596.	0.446
0.219	3.900	2.992	1.199	2.304	1.768	0.223	1278.	0.955	695.	0.519	596.	0.446	597.	0.446
0.216	3.890	2.985	1.196	2.434	1.867	0.220	1279.	0.956	697.	0.521	597.	0.446	598.	0.447
0.212	3.879	2.976	1.192	2.563	1.966	0.216	1279.	0.956	698.	0.522	598.	0.447	599.	0.448
0.210	3.868	2.968	1.190	2.664	2.044	0.214	1279.	0.956	700.	0.523	599.	0.447	600.	0.448
0.207	3.860	2.964	1.187	2.802	2.152	0.211	1279.	0.956	702.	0.524	599.	0.448	601.	0.449
0.204	3.849	2.957	1.184	2.941	2.260	0.208	1279.	0.956	703.	0.525	600.	0.449	602.	0.450
0.202	3.838	2.951	1.182	3.086	2.372	0.206	1279.	0.956	705.	0.527	601.	0.449	603.	0.450
0.200	3.825	2.941	1.180	3.202	2.462	0.204	1279.	0.956	706.	0.528	602.	0.450	603.	0.451
0.195	3.816	2.934	1.176	3.336	2.565	0.200	1280.	0.956	708.	0.529	603.	0.450	604.	0.451
0.193	3.805	2.926	1.173	3.504	2.694	0.197	1279.	0.956	709.	0.530	603.	0.451	605.	0.452
0.191	3.793	2.919	1.171	3.619	2.784	0.195	1279.	0.956	711.	0.531	604.	0.452	606.	0.453
0.188	3.780	2.910	1.168	3.737	2.878	0.192	1279.	0.957	712.	0.533	605.	0.453	606.	0.454
0.186	3.768	2.903	1.166	3.805	2.932	0.190	1280.	0.957	714.	0.534	606.	0.453	607.	0.454
0.183	3.758	2.898	1.163	3.885	2.995	0.187	1280.	0.957	715.	0.534	607.	0.453	608.	0.454
0.180	3.747	2.891	1.160	3.940	3.040	0.184	1280.	0.957	717.	0.536	607.	0.454	609.	0.455
0.177	3.737	2.883	1.157	3.997	3.084	0.181	1280.	0.957	718.	0.537	608.	0.455	609.	0.456
0.175	3.724	2.875	1.155	4.010	3.096	0.179	1280.	0.957	719.	0.538	609.	0.455	610.	0.456
0.172	3.713	2.868	1.152	4.026	3.110	0.176	1280.	0.957	721.	0.539	610.	0.456	611.	0.457
0.169	3.704	2.861	1.149	4.037	3.119	0.173	1280.	0.958	722.	0.540	610.	0.456	612.	0.457
0.166	3.692	2.854	1.146	4.042	3.125	0.170	1281.	0.958	723.	0.541	611.	0.457	612.	0.458
0.163	3.679	2.846	1.143	4.033	3.120	0.167	1280.	0.958	725.	0.542	612.	0.458	613.	0.459
0.159	3.665	2.835	1.139	4.028	3.116	0.163	1280.	0.958	726.	0.543	613.	0.458	614.	0.459
0.157	3.651	2.826	1.137	4.024	3.115	0.161	1280.	0.958	727.	0.544	613.	0.459	614.	0.460
0.154	3.640	2.820	1.134	4.022	3.116	0.158	1281.	0.958	729.	0.545	614.	0.459	615.	0.460
0.152	3.626	2.813	1.132	4.023	3.121	0.156	1281.	0.958	730.	0.546	615.	0.460	616.	0.461
0.148	3.614	2.803	1.128	4.018	3.117	0.152	1281.	0.958	731.	0.547	616.	0.460	617.	0.461
0.146	3.600	2.794	1.126	4.012	3.114	0.150	1281.	0.958	732.	0.548	616.	0.461	617.	0.462
0.143	3.586	2.785	1.123	4.015	3.119	0.147	1282.	0.959	734.	0.549	617.	0.462	618.	0.462
0.140	3.573	2.777	1.120	4.015	3.121	0.144	1282.	0.959	735.	0.550	618.	0.462	619.	0.463
0.136	3.557	2.767	1.116	4.014	3.122	0.140	1282.	0.959	736.	0.551	618.	0.462	619.	0.463
0.133	3.541	2.754	1.113	4.016	3.124	0.137	1283.	0.959	737.	0.551	619.	0.463	620.	0.464
0.130	3.523	2.742	1.110	4.013	3.124	0.134	1283.	0.959	738.	0.552	620.	0.464	620.	0.464
0.127	3.505	2.730	1.107	4.012	3.125	0.131	1283.	0.960	740.	0.553	621.	0.464	621.	0.465
0.123	3.490	2.718	1.103	4.011	3.124	0.127	1283.	0.959	741.	0.554	621.	0.465	622.	0.465
0.120	3.470	2.705	1.100	4.012	3.127	0.124	1284.	0.960	742.	0.555	622.	0.465	622.	0.465
0.116	3.447	2.689	1.096	4.021	3.137	0.120	1284.	0.961	743.	0.556	622.	0.466	623.	0.466
0.112	3.433	2.670	1.092	4.045	3.147	0.116	1285.	0.961	744.	0.557	623.	0.466	624.	0.466
0.109	3.419	2.650	1.089	4.061	3.148	0.113	1286.	0.962	745.	0.557	624.	0.467	624.	0.467
0.105	3.404	2.630	1.085	4.074	3.148	0.109	1286.	0.961	746.	0.558	625.	0.467	625.	0.467

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
18.	139	7.92	146.4	1338.	35.07	-5.07	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.8	0.0160	1.300	0.703	3860.	0.43/E-03	0.256E-05	0.660E 06	13.55	0.0	0.60	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.102	3.392	2.609	1.082	4.091	3.148	0.106	1286.	0.961	747.	0.559	625.	0.467	626.	0.468
0.098	3.376	2.590	1.078	4.107	3.151	0.102	1287.	0.963	748.	0.560	626.	0.468	626.	0.468
0.095	3.361	2.570	1.075	4.128	3.157	0.099	1287.	0.962	750.	0.560	627.	0.468	627.	0.469
0.091	3.337	2.544	1.071	4.139	3.154	0.095	1287.	0.962	751.	0.561	627.	0.469	628.	0.469
0.087	3.311	2.515	1.067	4.153	3.154	0.091	1287.	0.962	752.	0.562	628.	0.469	628.	0.470
0.084	3.282	2.487	1.064	4.158	3.150	0.088	1287.	0.962	753.	0.563	629.	0.470	629.	0.470
0.080	3.250	2.459	1.060	4.167	3.152	0.084	1286.	0.961	754.	0.563	629.	0.470	630.	0.470
0.077	3.208	2.429	1.057	4.171	3.158	0.081	1285.	0.961	755.	0.564	630.	0.471	630.	0.471
0.074	3.158	2.388	1.054	4.170	3.153	0.078	1283.	0.959	756.	0.565	631.	0.472	631.	0.471
0.070	3.106	2.348	1.050	4.177	3.158	0.074	1282.	0.958	757.	0.566	632.	0.472	631.	0.472
0.066	3.052	2.307	1.046	4.179	3.159	0.070	1279.	0.956	758.	0.566	632.	0.473	632.	0.472
0.062	2.991	2.260	1.042	4.182	3.160	0.066	1274.	0.952	759.	0.567	633.	0.473	632.	0.473
0.058	2.911	2.201	1.038	4.185	3.164	0.062	1266.	0.946	760.	0.568	634.	0.473	633.	0.473
0.054	2.821	2.131	1.034	4.190	3.165	0.058	1256.	0.938	761.	0.569	634.	0.474	633.	0.473
0.050	2.715	2.051	1.030	4.190	3.166	0.054	1239.	0.926	762.	0.569	635.	0.475	634.	0.474
0.045	2.590	1.957	1.025	4.194	3.168	0.049	1215.	0.908	763.	0.570	635.	0.475	635.	0.474
0.040	2.446	1.848	1.020	4.199	3.172	0.044	1185.	0.886	764.	0.571	636.	0.475	635.	0.475
0.036	2.283	1.725	1.016	4.202	3.175	0.040	1148.	0.858	765.	0.572	637.	0.476	636.	0.475
0.031	2.115	1.597	1.011	4.204	3.176	0.035	1108.	0.828	766.	0.572	638.	0.476	636.	0.476
0.028	1.949	1.473	1.008	4.207	3.178	0.032	1071.	0.800	767.	0.573	638.	0.477	637.	0.476
0.024	1.747	1.358	1.004	4.210	3.181	0.028	1035.	0.773	767.	0.574	639.	0.477	638.	0.477
0.021	1.659	1.253	1.001	4.212	3.182	0.025	998.	0.746	768.	0.574	639.	0.478	638.	0.477
0.018	1.528	1.155	0.998	4.211	3.184	0.022	962.	0.719	769.	0.575	640.	0.478	639.	0.477
0.014	1.412	1.067	0.994	4.212	3.182	0.018	922.	0.689	770.	0.576	641.	0.479	640.	0.478
0.011	1.309	0.989	0.991	4.216	3.187	0.015	877.	0.656	771.	0.576	641.	0.479	640.	0.479
0.007	1.217	0.919	0.987	4.220	3.188	0.011	803.	0.600	772.	0.577	642.	0.480	641.	0.479
0.007	1.035	0.782	0.987	4.217	3.186	0.011	780.	0.583	774.	0.579	643.	0.481	643.	0.480

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 ARJ, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
19.	139	7.92	150.1	1338.	35.04	-5.04	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	PC-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
58.8	0.0164	1.333	0.721	3860.	0.448E-03	0.256E-05	0.677E 06	11.29	0.0	0.50	22.58			
ZP1 (IN)	PP1 (PSIA)	PPI/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/T0	TW1 (DEG R)	TW1/T0	TW2 (DEG R)	TW2/T0	TW3 (DEG R)	TW3/T0
			2.292	1.217	0.913	1.316	1245.	0.931	550.	0.411	530.	0.396	554.	0.414
			2.275	1.218	0.914	1.299	1245.	0.931	553.	0.414	531.	0.397	557.	0.417
			2.241	1.218	0.914	1.265	1245.	0.931	556.	0.416	533.	0.398	561.	0.419
			2.208	1.220	0.915	1.232	1245.	0.931	560.	0.418	535.	0.399	564.	0.421
			2.173	1.220	0.915	1.197	1245.	0.930	563.	0.421	536.	0.401	567.	0.424
			2.139	1.218	0.914	1.163	1245.	0.931	566.	0.423	538.	0.402	571.	0.427
			2.104	1.219	0.915	1.128	1245.	0.930	569.	0.425	539.	0.403	575.	0.430
			2.069	1.216	0.913	1.093	1243.	0.929	573.	0.428	541.	0.404	577.	0.432
			2.033	1.217	0.913	1.057	1254.	0.938	576.	0.430	542.	0.405	579.	0.433
			2.000	1.217	0.913	1.024	1267.	0.947	579.	0.433	544.	0.407	582.	0.435
1.009	4.118	3.107	1.989	1.211	0.914	1.013	1266.	0.947	613.	0.459	558.	0.417	608.	0.454
0.977	4.135	3.119	1.957	1.209	0.912	0.981	1267.	0.947	616.	0.461	559.	0.418	610.	0.456
0.944	4.154	3.138	1.924	1.210	0.914	0.948	1266.	0.947	619.	0.463	560.	0.419	612.	0.457
0.911	4.172	3.152	1.891	1.206	0.911	0.915	1266.	0.947	622.	0.465	562.	0.420	613.	0.459
0.876	4.193	3.168	1.856	1.204	0.910	0.880	1266.	0.947	625.	0.467	563.	0.421	614.	0.459
0.841	4.215	3.189	1.821	1.206	0.912	0.845	1266.	0.947	627.	0.469	564.	0.422	614.	0.459
0.806	4.230	3.204	1.786	1.205	0.913	0.810	1266.	0.947	630.	0.471	565.	0.422	615.	0.460
0.771	4.244	3.219	1.751	1.204	0.913	0.775	1266.	0.947	633.	0.473	566.	0.423	616.	0.461
0.737	4.258	3.230	1.717	1.203	0.912	0.741	1267.	0.947	635.	0.475	567.	0.424	617.	0.461
0.702	4.279	3.248	1.682	1.201	0.912	0.706	1266.	0.947	638.	0.477	568.	0.425	617.	0.462
0.667	4.315	3.275	1.647	1.201	0.912	0.671	1266.	0.947	640.	0.479	569.	0.426	618.	0.463
0.632	4.363	3.314	1.612	1.202	0.913	0.636	1266.	0.947	643.	0.481	570.	0.426	619.	0.463
0.597	4.400	3.340	1.577	1.201	0.912	0.601	1266.	0.947	645.	0.483	572.	0.427	620.	0.464
0.562	4.419	3.356	1.542	1.200	0.912	0.566	1266.	0.947	648.	0.484	572.	0.428	620.	0.464
0.527	4.426	3.362	1.507	1.199	0.911	0.531	1266.	0.947	650.	0.486	574.	0.429	620.	0.464
0.492	4.420	3.360	1.472	1.202	0.914	0.496	1267.	0.948	652.	0.488	575.	0.430	620.	0.464
0.457	4.387	3.332	1.437	1.202	0.913	0.461	1267.	0.948	655.	0.490	577.	0.431	621.	0.464
0.422	4.341	3.299	1.402	1.199	0.912	0.426	1267.	0.948	657.	0.491	579.	0.433	621.	0.464
0.388	4.296	3.265	1.368	1.200	0.912	0.392	1268.	0.948	659.	0.493	579.	0.433	621.	0.464
			1.333	1.198	0.910	0.357	1269.	0.949	661.	0.495	580.	0.433	621.	0.464
			1.298	1.198	0.911	0.322	1270.	0.950	663.	0.496	580.	0.434	621.	0.464
			1.287	1.198	0.913	0.311	1270.	0.950	666.	0.498	580.	0.434	621.	0.464
			1.278	1.198	0.912	0.302	1270.	0.950	668.	0.499	581.	0.435	621.	0.465
			1.270	1.199	0.914	0.294	1270.	0.950	670.	0.501	582.	0.435	622.	0.465
			1.268	1.196	0.912	0.292	1270.	0.950	672.	0.502	583.	0.436	622.	0.465
			1.265	1.196	0.912	0.289	1271.	0.950	674.	0.504	584.	0.437	622.	0.466
0.283	3.972	3.030	1.263	1.195	0.912	0.287	1270.	0.950	676.	0.505	585.	0.437	623.	0.466
0.280	3.963	3.024	1.260	1.196	0.913	0.284	1270.	0.950	678.	0.507	586.	0.438	623.	0.466
0.278	3.951	3.020	1.258	1.192	0.911	0.282	1271.	0.950	680.	0.508	587.	0.439	624.	0.467
0.275	3.944	3.016	1.255	1.194	0.913	0.279	1271.	0.950	682.	0.510	588.	0.440	624.	0.467
0.272	3.936	3.010	1.252	1.195	0.914	0.276	1271.	0.951	683.	0.511	589.	0.440	625.	0.467
0.269	3.927	3.003	1.249	1.193	0.912	0.273	1270.	0.950	685.	0.513	590.	0.441	625.	0.468

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 ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO.	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
19.	139	7.92	147.1	1337.	35.05	-5.05	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)	(IN)	(IN)			
98.7	0.0161	1.306	0.706	3859.	0.439E-03	0.256E-05	0.663E 06	11.29	0.0	0.50	22.58			
ZP1	PF1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.267	3.916	2.999	1.247	1.191	0.912	0.271	1271.	0.950	687.	0.514	591.	0.442	626.	0.468
0.264	3.908	2.991	1.244	1.189	0.910	0.268	1271.	0.951	689.	0.515	592.	0.443	626.	0.468
0.262	3.901	2.988	1.242	1.192	0.913	0.266	1271.	0.951	691.	0.517	593.	0.443	627.	0.469
0.259	3.895	2.983	1.239	1.191	0.912	0.263	1271.	0.950	692.	0.518	594.	0.444	627.	0.469
0.256	3.885	2.977	1.236	1.189	0.911	0.260	1271.	0.951	694.	0.519	595.	0.445	628.	0.469
0.252	3.874	2.971	1.232	1.189	0.912	0.256	1271.	0.951	696.	0.520	596.	0.446	628.	0.470
0.249	3.869	2.967	1.229	1.192	0.914	0.253	1271.	0.951	697.	0.522	597.	0.446	629.	0.470
0.247	3.858	2.959	1.227	1.189	0.912	0.251	1272.	0.951	699.	0.523	597.	0.447	629.	0.471
0.243	3.852	2.956	1.223	1.190	0.913	0.247	1271.	0.951	701.	0.524	599.	0.448	630.	0.471
0.240	3.840	2.948	1.220	1.190	0.914	0.244	1271.	0.951	702.	0.525	599.	0.448	630.	0.472
0.237	3.831	2.942	1.217	1.191	0.914	0.241	1272.	0.951	704.	0.526	600.	0.449	631.	0.472
0.234	3.825	2.935	1.214	1.192	0.915	0.238	1272.	0.952	705.	0.528	601.	0.450	632.	0.472
0.230	3.821	2.928	1.210	1.196	0.916	0.234	1273.	0.952	707.	0.529	602.	0.450	632.	0.473
0.227	3.815	2.916	1.207	1.196	0.914	0.231	1272.	0.952	709.	0.530	603.	0.451	633.	0.473
0.225	3.815	2.909	1.205	1.199	0.914	0.229	1272.	0.952	710.	0.531	604.	0.452	634.	0.474
0.222	3.811	2.903	1.202	1.200	0.914	0.226	1273.	0.952	712.	0.532	605.	0.452	634.	0.474
0.219	3.808	2.897	1.199	1.202	0.915	0.223	1273.	0.952	713.	0.533	605.	0.453	635.	0.475
0.216	3.808	2.890	1.196	1.206	0.915	0.220	1273.	0.952	714.	0.534	606.	0.454	636.	0.475
0.212	3.801	2.882	1.192	1.206	0.914	0.216	1273.	0.952	716.	0.536	607.	0.454	636.	0.476
0.209	3.794	2.874	1.189	1.205	0.913	0.213	1273.	0.952	717.	0.537	608.	0.455	637.	0.476
0.205	3.788	2.868	1.185	1.206	0.913	0.209	1273.	0.952	719.	0.538	609.	0.455	638.	0.477
0.201	3.779	2.861	1.181	1.207	0.914	0.205	1273.	0.952	720.	0.539	610.	0.456	638.	0.478
0.197	3.767	2.853	1.177	1.205	0.913	0.201	1273.	0.952	722.	0.540	611.	0.457	639.	0.478
0.193	3.750	2.844	1.173	1.203	0.912	0.197	1273.	0.952	723.	0.541	612.	0.458	640.	0.479
0.190	3.732	2.833	1.170	1.199	0.910	0.194	1273.	0.952	724.	0.542	613.	0.458	640.	0.479
0.184	3.715	2.822	1.164	1.199	0.911	0.188	1274.	0.953	726.	0.543	613.	0.459	641.	0.479
0.181	3.697	2.812	1.161	1.198	0.911	0.185	1274.	0.953	727.	0.544	614.	0.459	642.	0.480
0.176	3.679	2.802	1.156	1.198	0.912	0.180	1274.	0.953	728.	0.545	615.	0.460	642.	0.480
0.173	3.660	2.793	1.153	1.196	0.913	0.177	1274.	0.953	730.	0.546	616.	0.461	643.	0.481
0.169	3.640	2.780	1.149	1.194	0.912	0.173	1275.	0.953	731.	0.547	617.	0.462	644.	0.482
0.165	3.623	2.768	1.145	1.194	0.912	0.169	1275.	0.953	732.	0.548	618.	0.463	644.	0.482
0.161	3.602	2.754	1.141	1.193	0.912	0.165	1275.	0.954	733.	0.548	620.	0.463	645.	0.482
0.157	3.581	2.742	1.137	1.191	0.912	0.161	1275.	0.954	735.	0.549	621.	0.464	646.	0.483
0.153	3.559	2.727	1.133	1.189	0.911	0.157	1276.	0.954	736.	0.550	622.	0.465	646.	0.484
0.149	3.539	2.714	1.129	1.188	0.911	0.153	1276.	0.954	737.	0.551	624.	0.466	647.	0.484
0.146	3.521	2.704	1.126	1.187	0.912	0.150	1276.	0.955	738.	0.552	625.	0.467	648.	0.485
0.143	3.504	2.694	1.123	1.187	0.913	0.147	1277.	0.955	739.	0.553	626.	0.469	648.	0.485
0.140	3.484	2.681	1.120	1.185	0.912	0.144	1276.	0.955	741.	0.554	628.	0.470	649.	0.486
0.137	3.465	2.666	1.117	1.185	0.912	0.141	1277.	0.955	742.	0.555	629.	0.471	650.	0.486
0.133	3.448	2.657	1.113	1.187	0.915	0.137	1277.	0.955	743.	0.556	630.	0.471	651.	0.487
0.130	3.429	2.644	1.110	1.189	0.917	0.134	1278.	0.956	744.	0.556	632.	0.472	651.	0.487
0.127	3.411	2.631	1.107	1.191	0.919	0.131	1278.	0.956	745.	0.557	633.	0.473	652.	0.488



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GROUP	MODEL	MACH NO	PC(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
19.	139	7.92	145.8	1337.	35.05	-5.05	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.7	0.0159	1.294	0.700	3859.	0.435E-03	0.256E-05	0.658E 06	11.29	0.0	0.50	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PC1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.124	3.391	2.619	1.104	1.193	0.922	0.128	1278.	0.956	746.	0.558	634.	0.474	652.	0.488
0.122	3.371	2.606	1.102	1.197	0.925	0.126	1279.	0.957	747.	0.559	636.	0.475	653.	0.488
0.118	3.350	2.592	1.098	1.200	0.928	0.122	1279.	0.958	748.	0.560	637.	0.477	654.	0.489
0.116	3.328	2.575	1.096	1.203	0.931	0.120	1279.	0.958	749.	0.561	638.	0.477	654.	0.490
0.113	3.307	2.562	1.093	1.209	0.937	0.117	1280.	0.958	751.	0.562	639.	0.478	655.	0.490
0.110	3.287	2.543	1.090	1.219	0.943	0.114	1281.	0.959	752.	0.563	640.	0.479	656.	0.491
0.107	3.270	2.528	1.087	1.226	0.948	0.111	1281.	0.958	753.	0.563	642.	0.480	656.	0.491
0.103	3.250	2.506	1.083	1.237	0.954	0.107	1282.	0.959	754.	0.564	643.	0.481	657.	0.492
0.100	3.230	2.486	1.080	1.251	0.963	0.104	1282.	0.959	755.	0.565	644.	0.482	657.	0.492
0.096	3.205	2.460	1.076	1.263	0.969	0.100	1282.	0.960	756.	0.566	645.	0.483	658.	0.493
0.093	3.180	2.435	1.073	1.278	0.979	0.097	1283.	0.960	757.	0.566	646.	0.484	659.	0.493
0.089	3.154	2.409	1.069	1.298	0.991	0.093	1283.	0.960	758.	0.567	647.	0.484	659.	0.493
0.085	3.124	2.381	1.065	1.326	1.011	0.089	1283.	0.960	759.	0.568	648.	0.485	660.	0.494
0.081	3.087	2.347	1.061	1.367	1.039	0.085	1283.	0.960	760.	0.569	650.	0.486	660.	0.494
0.077	3.047	2.313	1.057	1.431	1.086	0.081	1287.	0.960	761.	0.569	651.	0.487	661.	0.495
0.073	3.002	2.272	1.053	1.543	1.168	0.077	1281.	0.959	762.	0.570	652.	0.488	661.	0.495
0.070	2.953	2.231	1.050	1.648	1.245	0.074	1280.	0.958	763.	0.571	653.	0.488	662.	0.496
0.066	2.901	2.188	1.046	1.788	1.349	0.070	1278.	0.956	764.	0.572	654.	0.489	663.	0.496
0.062	2.844	2.142	1.042	1.934	1.456	0.066	1275.	0.955	765.	0.572	655.	0.490	663.	0.496
0.059	2.782	2.092	1.039	2.089	1.571	0.063	1271.	0.951	766.	0.573	656.	0.491	664.	0.497
0.056	2.716	2.040	1.036	2.242	1.684	0.060	1265.	0.947	767.	0.574	657.	0.492	664.	0.497
0.052	2.637	1.979	1.032	2.383	1.788	0.056	1256.	0.940	767.	0.574	658.	0.492	665.	0.498
0.048	2.553	1.914	1.028	2.546	1.908	0.052	1245.	0.932	768.	0.575	659.	0.493	665.	0.498
0.044	2.451	1.836	1.024	2.753	2.062	0.048	1227.	0.919	769.	0.576	660.	0.494	666.	0.498
0.040	2.337	1.748	1.020	2.950	2.206	0.044	1206.	0.903	770.	0.576	661.	0.495	666.	0.499
0.035	2.216	1.655	1.015	3.195	2.386	0.039	1176.	0.880	771.	0.577	663.	0.496	667.	0.499
0.031	2.073	1.547	1.011	3.439	2.567	0.035	1140.	0.853	772.	0.578	664.	0.497	667.	0.500
0.027	1.919	1.432	1.007	3.693	2.755	0.031	1096.	0.820	773.	0.579	666.	0.498	668.	0.500
0.022	1.767	1.317	1.002	3.929	2.929	0.026	1050.	0.786	774.	0.579	668.	0.500	669.	0.500
0.017	1.623	1.208	0.997	4.111	3.061	0.021	997.	0.746	775.	0.580	670.	0.502	669.	0.501
0.013	1.488	1.108	0.993	4.210	3.134	0.017	938.	0.702	776.	0.580	673.	0.504	670.	0.501
0.008	1.363	1.017	0.988	4.239	3.162	0.012	868.	0.649	776.	0.581	677.	0.507	670.	0.501
0.007	1.159	0.870	0.987	4.216	3.164	0.011	824.	0.616	778.	0.583	682.	0.510	671.	0.502

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 ARJ, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/RI OM9 SHUTTLE TEST  
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GROUP	MODEL	RACH NO.	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
20.	139	7.92	152.9	1336.	35.05	*5.05	30.00	180.00	0					
T-INF	P-INF	P01	U-INF	U-INF	HMO-INF	MU-INF	FE/FT	X	Y					
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-L)	(IN)	(IN)					
98.6	0.0167	1.358	0.734	3857.	0.457E-03	0.255E-05	0.691E 06	9.03	0.0					
X/L	L													
0.40	22.58													
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	Z12	T12	T12/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
1.355	0.909	0.669	2.335	1.236	0.910	1.359	1245.	0.932	541.	0.405	527.	0.395	561.	0.420
1.336	0.912	0.671	2.316	1.239	0.912	1.340	1245.	0.932	544.	0.407	528.	0.395	566.	0.423
1.302	0.911	0.670	2.282	1.238	0.911	1.306	1245.	0.932	547.	0.410	529.	0.396	570.	0.426
1.268	0.908	0.669	2.248	1.236	0.911	1.272	1245.	0.932	551.	0.412	531.	0.397	574.	0.429
1.234	0.912	0.672	2.214	1.239	0.913	1.238	1245.	0.932	554.	0.415	532.	0.398	577.	0.432
1.199	0.912	0.672	2.179	1.236	0.912	1.203	1245.	0.932	557.	0.417	533.	0.399	580.	0.434
1.164	0.912	0.672	2.144	1.237	0.912	1.168	1245.	0.932	561.	0.420	534.	0.400	583.	0.436
1.128	0.909	0.671	2.108	1.235	0.911	1.132	1245.	0.932	564.	0.422	535.	0.400	586.	0.439
1.093	0.912	0.672	2.073	1.237	0.912	1.097	1245.	0.932	567.	0.425	536.	0.401	589.	0.441
1.058	0.910	0.672	2.038	1.236	0.913	1.062	1245.	0.932	571.	0.427	536.	0.401	592.	0.443
1.025	0.913	0.674	2.005	1.236	0.912	1.029	1245.	0.932	574.	0.430	537.	0.402	594.	0.445
0.992	0.912	0.673	1.972	1.238	0.914	0.996	1245.	0.932	578.	0.432	539.	0.403	597.	0.447
0.958	0.911	0.673	1.938	1.237	0.914	0.962	1244.	0.931	581.	0.435	540.	0.404	600.	0.449
0.924	0.909	0.674	1.904	1.235	0.914	0.928	1246.	0.932	584.	0.437	542.	0.406	603.	0.451
0.894	0.919	0.674	1.874	1.235	0.915	0.898	1266.	0.947	588.	0.440	544.	0.407	605.	0.453
0.885	4.150	3.098	1.865	1.228	0.917	0.889	1266.	0.947	621.	0.465	559.	0.418	636.	0.476
0.850	4.216	3.147	1.830	1.226	0.915	0.854	1265.	0.947	624.	0.467	560.	0.419	638.	0.478
0.816	4.285	3.203	1.796	1.227	0.917	0.820	1265.	0.947	627.	0.469	561.	0.420	641.	0.480
0.781	4.339	3.248	1.761	1.227	0.918	0.785	1265.	0.947	630.	0.471	561.	0.420	644.	0.482
0.746	4.370	3.273	1.726	1.227	0.919	0.750	1265.	0.947	632.	0.473	562.	0.421	648.	0.485
0.711	4.379	3.280	1.691	1.227	0.919	0.715	1265.	0.947	635.	0.475	564.	0.422	652.	0.488
0.676	4.379	3.284	1.656	1.227	0.920	0.680	1265.	0.947	637.	0.477	565.	0.423	655.	0.490
0.641	4.394	3.298	1.621	1.226	0.920	0.645	1265.	0.947	640.	0.479	566.	0.424	660.	0.494
0.606	4.374	3.287	1.586	1.225	0.920	0.610	1265.	0.947	642.	0.481	568.	0.425	664.	0.497
0.571	4.328	3.255	1.551	1.225	0.921	0.575	1266.	0.948	645.	0.483	569.	0.426	668.	0.500
0.536	4.285	3.225	1.516	1.225	0.922	0.540	1267.	0.948	647.	0.484	570.	0.427	671.	0.502
0.501	4.252	3.202	1.481	1.224	0.922	0.505	1267.	0.948	650.	0.486	572.	0.428	674.	0.504
0.466	4.214	3.177	1.446	1.223	0.922	0.470	1267.	0.949	652.	0.488	573.	0.429	676.	0.506
0.431	4.166	3.143	1.411	1.223	0.923	0.435	1268.	0.949	654.	0.490	575.	0.430	677.	0.507
			1.376	1.222	0.923	0.400	1268.	0.949	656.	0.491	576.	0.431	679.	0.508
			1.341	1.221	0.923	0.365	1269.	0.950	659.	0.493	577.	0.432	680.	0.509
			1.316	1.220	0.923	0.340	1270.	0.950	661.	0.495	578.	0.433	682.	0.510
			1.307	1.221	0.925	0.331	1270.	0.951	663.	0.496	579.	0.433	684.	0.512
			1.301	1.218	0.923	0.325	1270.	0.950	665.	0.498	580.	0.434	686.	0.513
			1.298	1.218	0.924	0.322	1270.	0.950	667.	0.499	581.	0.435	688.	0.515
0.315	3.850	2.922	1.295	1.217	0.924	0.319	1270.	0.950	669.	0.501	583.	0.436	690.	0.516
0.312	3.839	2.916	1.292	1.217	0.924	0.316	1270.	0.951	671.	0.503	584.	0.437	691.	0.518
0.310	3.831	2.910	1.290	1.217	0.924	0.314	1270.	0.951	673.	0.504	585.	0.438	693.	0.519
0.307	3.822	2.903	1.287	1.216	0.924	0.311	1270.	0.951	675.	0.506	586.	0.439	695.	0.520
0.305	3.813	2.898	1.285	1.215	0.923	0.309	1270.	0.951	677.	0.507	587.	0.440	696.	0.522
0.302	3.804	2.894	1.282	1.213	0.923	0.306	1270.	0.951	679.	0.509	588.	0.441	698.	0.523
0.298	3.799	2.891	1.278	1.216	0.925	0.302	1270.	0.951	681.	0.510	590.	0.442	700.	0.524

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ARO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
20.	139	7.42	147.9	1335.	35.06	-5.06	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	RMU-INF	PU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.6	0.0162	1.313	0.710	3856.	0.442E-03	0.255E-05	0.669E 06	9.03	0.0	0.40	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	Z12	Y12	T12/T0	TW1	TW1/T0	TW2	TW2/T0	TW3	TW3/T0
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.296	3.791	2.887	1.276	1.213	0.924	0.300	1270.	0.951	683.	0.512	591.	0.443	701.	0.525
0.293	3.781	2.882	1.273	1.212	0.924	0.297	1270.	0.951	685.	0.513	592.	0.443	703.	0.526
0.289	3.772	2.877	1.269	1.210	0.923	0.293	1271.	0.952	687.	0.514	593.	0.444	704.	0.527
0.286	3.764	2.874	1.266	1.210	0.924	0.290	1271.	0.952	688.	0.516	594.	0.445	706.	0.529
0.284	3.751	2.865	1.264	1.209	0.924	0.288	1270.	0.952	690.	0.517	595.	0.446	707.	0.530
0.281	3.744	2.861	1.261	1.209	0.924	0.285	1270.	0.952	692.	0.518	596.	0.447	708.	0.531
0.278	3.733	2.855	1.258	1.205	0.922	0.282	1270.	0.952	694.	0.520	597.	0.447	710.	0.532
0.275	3.725	2.848	1.255	1.209	0.924	0.279	1271.	0.952	695.	0.521	598.	0.448	711.	0.533
0.272	3.715	2.845	1.252	1.207	0.924	0.276	1271.	0.952	697.	0.522	599.	0.449	712.	0.534
0.268	3.705	2.839	1.248	1.206	0.924	0.272	1271.	0.952	699.	0.523	600.	0.450	714.	0.535
0.265	3.695	2.831	1.245	1.205	0.923	0.269	1271.	0.952	700.	0.525	601.	0.450	715.	0.536
0.262	3.684	2.825	1.242	1.204	0.923	0.266	1271.	0.952	702.	0.526	602.	0.451	716.	0.536
0.259	3.674	2.819	1.239	1.205	0.925	0.263	1271.	0.952	703.	0.527	603.	0.452	717.	0.537
0.256	3.663	2.812	1.236	1.205	0.925	0.260	1271.	0.952	705.	0.528	605.	0.453	719.	0.538
0.253	3.654	2.806	1.233	1.205	0.926	0.257	1271.	0.952	707.	0.529	606.	0.454	720.	0.539
0.250	3.648	2.799	1.230	1.205	0.925	0.254	1272.	0.952	708.	0.530	607.	0.454	721.	0.540
0.246	3.640	2.791	1.226	1.207	0.925	0.250	1272.	0.953	710.	0.531	607.	0.455	722.	0.541
0.243	3.635	2.785	1.223	1.210	0.927	0.247	1272.	0.953	711.	0.533	608.	0.456	724.	0.542
0.239	3.629	2.777	1.219	1.210	0.926	0.243	1272.	0.953	712.	0.534	609.	0.456	725.	0.543
0.236	3.624	2.773	1.216	1.211	0.927	0.240	1272.	0.953	714.	0.535	610.	0.457	726.	0.544
0.233	3.619	2.765	1.213	1.213	0.927	0.237	1272.	0.953	715.	0.536	611.	0.458	727.	0.545
0.230	3.614	2.760	1.210	1.213	0.926	0.234	1272.	0.953	717.	0.537	612.	0.458	728.	0.546
0.226	3.608	2.753	1.206	1.214	0.926	0.230	1272.	0.953	718.	0.538	613.	0.459	730.	0.546
0.222	3.599	2.745	1.202	1.215	0.927	0.226	1272.	0.953	720.	0.539	614.	0.460	731.	0.547
0.219	3.593	2.738	1.199	1.217	0.927	0.223	1273.	0.954	721.	0.540	615.	0.460	732.	0.548
0.215	3.587	2.730	1.195	1.217	0.926	0.219	1273.	0.954	722.	0.541	615.	0.461	733.	0.549
0.212	3.575	2.721	1.192	1.216	0.925	0.216	1273.	0.954	724.	0.542	616.	0.462	734.	0.550
0.210	3.568	2.715	1.190	1.217	0.926	0.214	1274.	0.954	725.	0.543	617.	0.462	735.	0.550
0.206	3.560	2.707	1.186	1.218	0.926	0.210	1273.	0.954	726.	0.544	618.	0.463	736.	0.551
0.203	3.554	2.698	1.183	1.216	0.925	0.207	1273.	0.954	728.	0.545	619.	0.464	737.	0.552
0.200	3.542	2.690	1.180	1.217	0.924	0.204	1273.	0.954	729.	0.546	620.	0.464	738.	0.553
0.197	3.535	2.685	1.177	1.218	0.925	0.201	1274.	0.954	730.	0.547	621.	0.465	739.	0.553
0.193	3.527	2.679	1.173	1.219	0.926	0.197	1274.	0.954	732.	0.548	621.	0.465	740.	0.554
0.190	3.516	2.669	1.170	1.219	0.925	0.194	1274.	0.954	733.	0.549	622.	0.466	741.	0.555
0.187	3.508	2.662	1.167	1.218	0.924	0.191	1274.	0.954	734.	0.550	623.	0.467	742.	0.556
0.184	3.499	2.654	1.164	1.220	0.925	0.188	1274.	0.954	735.	0.551	624.	0.467	742.	0.556
0.181	3.492	2.650	1.161	1.220	0.926	0.185	1275.	0.955	736.	0.552	625.	0.468	743.	0.557
0.178	3.479	2.639	1.158	1.221	0.926	0.182	1274.	0.955	738.	0.553	626.	0.469	744.	0.557
0.174	3.467	2.628	1.154	1.218	0.923	0.178	1275.	0.955	739.	0.554	627.	0.469	745.	0.558
0.171	3.457	2.622	1.151	1.220	0.925	0.175	1275.	0.955	740.	0.554	627.	0.470	746.	0.559
0.168	3.448	2.615	1.148	1.221	0.926	0.172	1276.	0.956	741.	0.555	628.	0.470	747.	0.559
0.165	3.436	2.604	1.145	1.220	0.925	0.169	1276.	0.955	742.	0.556	629.	0.471	747.	0.560

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 PROJECT NUMBER - VA353-21EA  
 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/HI OM9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO.	PC (PSIA)	TO (DEG H)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
20.	139	7.92	148.6	1335.	35.06	-5.06	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	PC-INF	RE/FT	X	Y					
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)					
98.6	0.0162	1.319	0.713	3856.	0.444E-03	0.255E-05	0.672E 06	9.03	0.0					
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	Z12	1T2	1T2/10	TW1	TW1/10	TW2	TW2/10	TW3	TW3/10
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG H)		(DEG R)		(DEG R)		(DEG R)	
0.161	3.423	2.594	1.141	1.219	0.924	0.165	1276.	0.956	744.	0.557	630.	0.472	748.	0.561
0.158	3.410	2.585	1.138	1.220	0.925	0.162	1276.	0.956	745.	0.558	631.	0.472	749.	0.561
0.154	3.397	2.575	1.134	1.220	0.925	0.158	1277.	0.956	746.	0.559	631.	0.473	750.	0.562
0.151	3.382	2.563	1.131	1.220	0.925	0.155	1277.	0.957	747.	0.560	632.	0.473	751.	0.562
0.147	3.364	2.550	1.127	1.220	0.925	0.151	1277.	0.957	748.	0.560	633.	0.474	751.	0.563
0.143	3.344	2.535	1.123	1.219	0.924	0.147	1277.	0.957	749.	0.561	634.	0.475	752.	0.563
0.139	3.326	2.522	1.119	1.220	0.925	0.143	1278.	0.957	750.	0.562	634.	0.475	753.	0.564
0.136	3.306	2.506	1.116	1.220	0.925	0.140	1279.	0.958	751.	0.563	635.	0.476	753.	0.564
0.132	3.286	2.491	1.112	1.220	0.925	0.136	1279.	0.958	752.	0.564	636.	0.476	754.	0.565
0.129	3.263	2.474	1.109	1.219	0.924	0.133	1279.	0.958	753.	0.564	637.	0.477	754.	0.565
0.127	3.241	2.457	1.107	1.219	0.924	0.131	1280.	0.958	754.	0.565	637.	0.477	755.	0.565
0.123	3.221	2.442	1.103	1.219	0.924	0.127	1280.	0.959	755.	0.566	638.	0.478	755.	0.566
0.119	3.198	2.424	1.099	1.220	0.925	0.123	1280.	0.959	756.	0.567	639.	0.479	756.	0.566
0.115	3.171	2.404	1.095	1.219	0.924	0.119	1281.	0.959	758.	0.567	640.	0.479	756.	0.567
0.112	3.143	2.383	1.092	1.217	0.922	0.116	1281.	0.959	759.	0.568	641.	0.480	757.	0.567
0.108	3.116	2.362	1.088	1.218	0.923	0.112	1282.	0.960	760.	0.569	642.	0.481	758.	0.568
0.106	3.090	2.342	1.086	1.217	0.923	0.110	1282.	0.960	761.	0.570	642.	0.481	758.	0.568
0.103	3.060	2.320	1.083	1.218	0.923	0.107	1282.	0.960	761.	0.570	643.	0.482	759.	0.568
0.099	3.028	2.295	1.079	1.218	0.923	0.103	1282.	0.960	762.	0.571	644.	0.483	759.	0.569
0.096	2.996	2.271	1.076	1.217	0.922	0.100	1282.	0.960	763.	0.572	645.	0.483	760.	0.569
0.093	2.963	2.246	1.073	1.218	0.923	0.097	1283.	0.961	764.	0.573	646.	0.484	761.	0.570
0.089	2.930	2.221	1.069	1.218	0.923	0.093	1283.	0.961	765.	0.573	647.	0.485	761.	0.570
0.086	2.894	2.194	1.066	1.218	0.923	0.090	1283.	0.961	766.	0.574	648.	0.485	762.	0.571
0.083	2.858	2.167	1.063	1.219	0.924	0.087	1283.	0.961	767.	0.575	649.	0.486	762.	0.571
0.079	2.820	2.138	1.059	1.218	0.923	0.083	1283.	0.961	768.	0.575	650.	0.487	763.	0.571
0.075	2.781	2.108	1.055	1.219	0.924	0.079	1283.	0.961	769.	0.576	651.	0.487	764.	0.572
0.071	2.740	2.075	1.051	1.219	0.924	0.075	1283.	0.961	770.	0.577	652.	0.488	764.	0.572
0.068	2.692	2.041	1.048	1.218	0.923	0.072	1281.	0.960	771.	0.577	653.	0.489	765.	0.573
0.064	2.639	1.999	1.044	1.219	0.923	0.068	1280.	0.959	772.	0.578	654.	0.490	765.	0.573
0.060	2.586	1.960	1.040	1.219	0.924	0.064	1279.	0.958	773.	0.579	655.	0.490	766.	0.574
0.055	2.529	1.917	1.035	1.220	0.925	0.059	1275.	0.955	773.	0.579	656.	0.491	767.	0.574
0.051	2.464	1.866	1.031	1.220	0.924	0.055	1268.	0.950	774.	0.580	657.	0.492	767.	0.575
0.047	2.387	1.808	1.027	1.219	0.923	0.051	1259.	0.943	775.	0.581	658.	0.493	768.	0.575
0.043	2.294	1.737	1.023	1.219	0.923	0.047	1244.	0.932	776.	0.581	659.	0.493	768.	0.575
0.039	2.193	1.661	1.019	1.219	0.923	0.043	1226.	0.918	777.	0.582	659.	0.494	769.	0.576
0.034	2.080	1.576	1.014	1.220	0.924	0.038	1196.	0.896	778.	0.583	660.	0.495	770.	0.576
0.031	1.958	1.483	1.011	1.219	0.923	0.035	1168.	0.875	779.	0.583	662.	0.496	770.	0.577
0.027	1.832	1.388	1.007	1.220	0.924	0.031	1135.	0.850	779.	0.584	663.	0.496	771.	0.577
0.024	1.706	1.292	1.004	1.221	0.925	0.028	1098.	0.822	780.	0.584	664.	0.497	771.	0.578
0.020	1.586	1.201	1.000	1.220	0.923	0.024	1062.	0.795	781.	0.585	666.	0.499	772.	0.578
0.016	1.469	1.113	0.996	1.219	0.923	0.020	1021.	0.765	782.	0.586	668.	0.501	773.	0.579
0.013	1.364	1.033	0.993	1.219	0.923	0.017	980.	0.734	783.	0.586	670.	0.502	773.	0.579

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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
20.	134	7.92	148.8	1335.	35.06	-5.06	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.6	0.0163	1.321	0.714	3856.	0.445E-03	0.255E-05	0.673E 06	9.03	0.0	0.40	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/T0	Tw1 (DEG R)	Tw1/T0	Tw2 (DEG R)	Tw2/T0	Tw3 (DEG R)	Tw3/T0
0.008	-1.264	-0.957	0.988	1.219	0.923	0.012	889.	0.666	783.	0.587	672.	0.503	774.	0.580
0.007	1.054	0.798	0.987	1.219	0.923	0.011	885.	0.663	786.	0.589	675.	0.506	776.	0.581

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GROUP	MODEL	MACH NO.	PC (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	KOLL-MODEL	YAW					
21.	139	7.92	152.9	1335.	35.06	-5.06	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	MMO-INF	MO-INF	RE/FT	X	Y					
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)					
98.6	0.0167	1.358	0.734	3856.	0.458E-03	0.255E-05	0.692E 06	6.77	0.0					
X/L	L													
(IN)	(IN)													
0.30	22.58													
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
1.119	0.905	0.666	2.099	1.243	0.915	1.123	1244.	0.932	561.	0.420	521.	0.391	569.	0.426
1.098	0.902	0.664	2.078	1.243	0.915	1.102	1244.	0.932	564.	0.422	526.	0.394	574.	0.430
1.062	0.901	0.663	2.042	1.242	0.915	1.066	1244.	0.932	567.	0.424	531.	0.398	578.	0.433
1.030	0.902	0.664	2.010	1.242	0.915	1.034	1244.	0.932	569.	0.426	535.	0.401	581.	0.435
0.995	0.905	0.666	1.975	1.243	0.915	0.999	1244.	0.932	572.	0.429	541.	0.406	584.	0.438
0.961	0.903	0.665	1.941	1.244	0.916	0.965	1244.	0.932	575.	0.431	550.	0.412	587.	0.440
0.926	0.903	0.665	1.906	1.242	0.915	0.930	1244.	0.932	578.	0.433	560.	0.420	590.	0.442
0.891	0.904	0.665	1.871	1.243	0.915	0.895	1244.	0.932	581.	0.435	562.	0.421	593.	0.444
0.856	0.903	0.665	1.836	1.242	0.915	0.860	1241.	0.929	584.	0.437	562.	0.421	596.	0.446
0.821	1.132	0.834	1.801	1.241	0.915	0.825	1256.	0.941	587.	0.440	560.	0.419	599.	0.448
0.808	2.143	1.578	1.788	1.240	0.913	0.812	1265.	0.948	590.	0.442	555.	0.419	601.	0.450
0.803	3.917	2.901	1.783	1.233	0.913	0.807	1264.	0.947	627.	0.470	587.	0.440	629.	0.471
0.768	4.027	2.984	1.748	1.232	0.913	0.772	1265.	0.948	630.	0.472	590.	0.442	631.	0.473
0.733	4.079	3.025	1.713	1.230	0.912	0.737	1265.	0.947	632.	0.474	593.	0.444	633.	0.474
0.697	4.081	3.028	1.677	1.228	0.912	0.701	1265.	0.947	635.	0.475	597.	0.447	634.	0.475
0.662	4.072	3.025	1.642	1.227	0.912	0.666	1266.	0.948	637.	0.477	599.	0.449	636.	0.476
0.627	4.073	3.028	1.607	1.228	0.913	0.631	1266.	0.949	640.	0.479	599.	0.449	637.	0.477
0.592	4.051	3.014	1.572	1.227	0.913	0.596	1266.	0.949	642.	0.481	601.	0.450	639.	0.479
0.557	4.016	2.990	1.537	1.226	0.913	0.561	1267.	0.949	644.	0.483	603.	0.452	641.	0.480
0.521	3.975	2.961	1.501	1.223	0.911	0.525	1267.	0.949	647.	0.484	603.	0.452	643.	0.481
0.486	3.929	2.929	1.466	1.223	0.912	0.490	1267.	0.949	649.	0.486	604.	0.453	644.	0.482
0.451	3.887	2.900	1.431	1.224	0.913	0.455	1268.	0.950	651.	0.488	606.	0.454	645.	0.483
			1.395	1.220	0.912	0.419	1268.	0.950	653.	0.489	607.	0.455	646.	0.484
			1.361	1.219	0.911	0.385	1269.	0.951	656.	0.491	609.	0.456	648.	0.486
			1.352	1.220	0.913	0.376	1269.	0.951	658.	0.493	611.	0.458	650.	0.487
			1.342	1.222	0.915	0.366	1269.	0.951	660.	0.494	613.	0.459	652.	0.488
			1.333	1.219	0.914	0.357	1269.	0.951	662.	0.496	615.	0.460	653.	0.489
			1.326	1.217	0.913	0.350	1270.	0.951	664.	0.497	616.	0.462	655.	0.490
0.344	3.644	2.737	1.324	1.216	0.913	0.348	1270.	0.951	666.	0.499	618.	0.463	656.	0.492
0.340	3.632	2.731	1.320	1.215	0.914	0.344	1269.	0.951	668.	0.500	619.	0.464	658.	0.493
0.337	3.621	2.723	1.317	1.215	0.914	0.341	1270.	0.951	670.	0.502	621.	0.465	659.	0.494
0.335	3.608	2.715	1.315	1.213	0.913	0.339	1270.	0.951	672.	0.503	623.	0.466	661.	0.495
0.331	3.597	2.709	1.311	1.211	0.912	0.335	1270.	0.952	674.	0.505	624.	0.468	662.	0.496
0.327	3.592	2.708	1.307	1.213	0.915	0.331	1270.	0.952	676.	0.507	625.	0.469	663.	0.497
0.325	3.580	2.701	1.305	1.212	0.914	0.329	1270.	0.952	678.	0.508	627.	0.470	665.	0.498
0.322	3.568	2.696	1.302	1.207	0.912	0.326	1270.	0.952	680.	0.509	628.	0.471	666.	0.499
0.319	3.562	2.693	1.299	1.208	0.913	0.323	1270.	0.952	681.	0.511	629.	0.472	668.	0.500
0.316	3.555	2.691	1.296	1.208	0.914	0.320	1270.	0.952	683.	0.512	630.	0.472	669.	0.502
0.312	3.544	2.683	1.292	1.205	0.913	0.316	1270.	0.952	685.	0.513	631.	0.473	670.	0.503
0.310	3.536	2.678	1.290	1.205	0.913	0.314	1270.	0.952	687.	0.515	633.	0.474	672.	0.504
0.307	3.525	2.672	1.287	1.202	0.911	0.311	1270.	0.952	688.	0.516	634.	0.475	673.	0.505
0.304	3.521	2.672	1.284	1.204	0.914	0.308	1271.	0.953	690.	0.517	634.	0.476	674.	0.506

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GROUP	MODEL	MACH NO	PC (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
21.	139	7.92	148.3	1334.	35.07	-5.07	30.00	180.00	0					
T-INF	P-INF	P01	U-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.5	0.0162	1.317	0.712	3854.	0.444E-03	0.255E-05	0.671E 06	6.77	0.0	0.30	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
-0.302	3.512	2.667	1.282	1.204	0.914	0.306	1271.	0.953	692.	0.519	635.	0.476	676.	0.507
0.299	3.499	2.661	1.279	1.201	0.914	0.303	1271.	0.952	693.	0.520	636.	0.477	677.	0.508
0.295	3.495	2.660	1.275	1.201	0.914	0.299	1271.	0.953	695.	0.521	637.	0.478	679.	0.509
0.292	3.488	2.654	1.272	1.201	0.914	0.296	1271.	0.952	697.	0.522	638.	0.478	680.	0.510
0.289	3.478	2.649	1.269	1.199	0.913	0.293	1271.	0.952	698.	0.523	639.	0.479	681.	0.511
0.286	3.470	2.643	1.266	1.199	0.913	0.290	1271.	0.953	700.	0.525	640.	0.480	682.	0.512
0.282	3.463	2.637	1.262	1.200	0.914	0.286	1271.	0.953	701.	0.526	641.	0.481	684.	0.513
0.279	3.455	2.633	1.259	1.198	0.913	0.283	1271.	0.953	703.	0.527	642.	0.481	685.	0.513
0.277	3.449	2.630	1.257	1.198	0.914	0.281	1271.	0.953	704.	0.528	643.	0.482	686.	0.514
0.274	3.444	2.626	1.254	1.199	0.914	0.278	1271.	0.953	706.	0.529	645.	0.483	687.	0.515
0.272	3.436	2.621	1.252	1.198	0.914	0.276	1271.	0.953	707.	0.530	646.	0.484	689.	0.516
0.269	3.433	2.618	1.249	1.199	0.915	0.273	1272.	0.953	709.	0.531	647.	0.485	690.	0.517
0.267	3.429	2.613	1.247	1.200	0.914	0.271	1271.	0.953	710.	0.533	648.	0.486	691.	0.518
0.263	3.422	2.610	1.243	1.198	0.914	0.267	1272.	0.953	712.	0.534	650.	0.487	692.	0.519
0.260	3.417	2.604	1.240	1.200	0.914	0.264	1272.	0.954	713.	0.535	651.	0.488	694.	0.520
0.257	3.412	2.600	1.237	1.199	0.914	0.261	1272.	0.954	715.	0.536	652.	0.489	695.	0.521
0.254	3.408	2.599	1.234	1.201	0.916	0.258	1272.	0.953	716.	0.537	654.	0.490	696.	0.522
0.251	3.397	2.589	1.231	1.198	0.913	0.255	1272.	0.953	717.	0.538	655.	0.491	697.	0.523
0.248	3.392	2.585	1.228	1.200	0.914	0.252	1272.	0.953	719.	0.539	656.	0.492	698.	0.523
0.244	3.382	2.578	1.224	1.198	0.913	0.248	1272.	0.954	720.	0.540	658.	0.493	699.	0.524
0.241	3.380	2.576	1.221	1.201	0.915	0.245	1272.	0.954	721.	0.541	659.	0.494	700.	0.525
0.238	3.369	2.569	1.218	1.198	0.914	0.242	1272.	0.954	723.	0.542	661.	0.495	701.	0.526
0.235	3.363	2.563	1.215	1.199	0.914	0.239	1272.	0.954	724.	0.543	662.	0.496	703.	0.527
0.232	3.355	2.557	1.212	1.198	0.913	0.236	1272.	0.954	725.	0.544	663.	0.497	704.	0.527
0.229	3.348	2.552	1.209	1.196	0.912	0.233	1273.	0.954	727.	0.545	665.	0.498	705.	0.528
0.226	3.341	2.548	1.206	1.199	0.914	0.230	1273.	0.954	728.	0.546	666.	0.499	706.	0.529
0.222	3.331	2.542	1.202	1.198	0.914	0.226	1272.	0.954	729.	0.547	667.	0.500	707.	0.530
0.218	3.321	2.534	1.198	1.195	0.912	0.222	1273.	0.954	730.	0.547	668.	0.501	708.	0.530
0.214	3.315	2.530	1.194	1.197	0.913	0.218	1274.	0.955	732.	0.548	669.	0.502	709.	0.531
0.211	3.302	2.522	1.191	1.195	0.913	0.215	1273.	0.955	733.	0.549	671.	0.503	709.	0.532
0.207	3.291	2.514	1.187	1.196	0.913	0.211	1274.	0.955	734.	0.550	672.	0.503	710.	0.533
0.203	3.281	2.507	1.183	1.194	0.913	0.207	1274.	0.955	735.	0.551	673.	0.504	711.	0.533
0.200	3.272	2.499	1.180	1.197	0.914	0.204	1274.	0.955	736.	0.552	673.	0.505	712.	0.534
0.196	3.261	2.492	1.176	1.196	0.914	0.200	1274.	0.955	737.	0.553	674.	0.505	713.	0.535
0.193	3.250	2.482	1.173	1.195	0.913	0.197	1274.	0.955	739.	0.554	675.	0.506	714.	0.535
0.189	3.238	2.473	1.169	1.197	0.914	0.193	1275.	0.956	740.	0.555	676.	0.507	715.	0.536
0.186	3.227	2.466	1.166	1.196	0.914	0.190	1276.	0.956	741.	0.555	677.	0.507	716.	0.537
0.178	3.202	2.446	1.158	1.198	0.915	0.182	1275.	0.956	743.	0.557	678.	0.509	718.	0.538
0.174	3.185	2.431	1.154	1.198	0.914	0.178	1276.	0.956	744.	0.558	679.	0.509	718.	0.539
0.171	3.169	2.420	1.151	1.196	0.914	0.175	1276.	0.957	745.	0.559	680.	0.509	719.	0.539
0.168	3.154	2.407	1.148	1.196	0.913	0.172	1277.	0.957	746.	0.559	680.	0.510	720.	0.540
0.165	3.136	2.395	1.145	1.199	0.916	0.169	1277.	0.957	747.	0.560	681.	0.511	721.	0.541

ORIGINAL PAGE IS  
OF POOR QUALITY

DATE = 9-18-73  
 PROJECT NUMBER --VA353-21BA  
 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/RI OH9 SHUTTLE TEST  
 PAGE --3.

GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
21.	139	7.92	147.6	1334.	35.07	-5.07	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	MU0-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.5	0.0161	1.310	0.708	3854.	0.442E-03	0.255E-05	0.668E 06	6.77	0.0	0.30	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.161	3.117	2.379	1.141	1.196	0.913	0.165	1277.	0.957	748.	0.561	682.	0.511	722.	0.541
0.158	3.100	2.366	1.138	1.197	0.913	0.162	1278.	0.958	750.	0.562	683.	0.512	723.	0.542
0.154	3.080	2.352	1.134	1.196	0.914	0.158	1278.	0.958	751.	0.563	683.	0.512	724.	0.542
0.152	3.062	2.339	1.132	1.198	0.915	0.156	1278.	0.958	752.	0.563	684.	0.513	725.	0.543
0.150	3.044	2.325	1.130	1.198	0.915	0.154	1278.	0.958	753.	0.564	685.	0.513	725.	0.544
0.147	3.024	2.309	1.127	1.195	0.913	0.151	1279.	0.958	754.	0.565	686.	0.514	726.	0.544
0.143	3.008	2.297	1.123	1.198	0.915	0.147	1279.	0.959	755.	0.566	687.	0.515	727.	0.545
0.142	2.992	2.285	1.122	1.199	0.916	0.146	1279.	0.959	756.	0.566	687.	0.515	728.	0.546
0.139	2.972	2.269	1.119	1.196	0.914	0.143	1279.	0.959	757.	0.567	688.	0.516	729.	0.546
0.135	2.956	2.256	1.115	1.197	0.913	0.139	1279.	0.959	758.	0.568	689.	0.516	729.	0.547
0.132	2.935	2.240	1.112	1.198	0.914	0.136	1280.	0.960	759.	0.569	690.	0.517	730.	0.547
0.129	2.913	2.224	1.109	1.197	0.914	0.133	1281.	0.960	760.	0.569	690.	0.518	731.	0.548
0.125	2.890	2.207	1.105	1.198	0.915	0.129	1281.	0.960	761.	0.570	691.	0.518	732.	0.548
0.122	2.865	2.188	1.102	1.198	0.915	0.126	1281.	0.960	761.	0.571	692.	0.519	732.	0.549
0.118	2.837	2.165	1.098	1.199	0.915	0.122	1281.	0.961	762.	0.571	693.	0.519	733.	0.549
0.114	2.811	2.145	1.094	1.199	0.915	0.118	1282.	0.961	763.	0.572	693.	0.520	734.	0.550
0.112	2.785	2.125	1.092	1.198	0.915	0.116	1282.	0.961	764.	0.573	694.	0.520	735.	0.551
0.108	2.756	2.103	1.088	1.198	0.915	0.112	1282.	0.961	765.	0.574	695.	0.521	736.	0.551
0.105	2.729	2.083	1.085	1.199	0.915	0.109	1283.	0.961	766.	0.574	695.	0.521	736.	0.552
0.102	2.701	2.060	1.082	1.200	0.915	0.106	1283.	0.962	767.	0.575	695.	0.521	737.	0.553
0.098	2.671	2.037	1.078	1.198	0.914	0.102	1284.	0.962	768.	0.576	696.	0.522	738.	0.553
0.095	2.643	2.016	1.075	1.199	0.915	0.099	1284.	0.962	769.	0.576	697.	0.522	739.	0.554
0.092	2.617	1.996	1.072	1.200	0.915	0.096	1284.	0.962	770.	0.577	697.	0.523	740.	0.555
0.090	2.589	1.974	1.070	1.201	0.916	0.094	1284.	0.963	771.	0.578	698.	0.523	741.	0.555
0.087	2.560	1.953	1.067	1.200	0.915	0.091	1285.	0.963	771.	0.578	698.	0.523	741.	0.556
0.084	2.535	1.933	1.064	1.201	0.916	0.088	1284.	0.963	772.	0.579	699.	0.524	742.	0.556
0.081	2.505	1.909	1.061	1.199	0.914	0.085	1285.	0.963	773.	0.580	700.	0.524	743.	0.557
0.077	2.475	1.887	1.057	1.198	0.913	0.081	1285.	0.963	774.	0.580	700.	0.525	744.	0.558
0.074	2.448	1.866	1.054	1.200	0.914	0.078	1286.	0.964	775.	0.581	701.	0.526	744.	0.558
0.070	2.419	1.843	1.050	1.202	0.916	0.074	1286.	0.964	776.	0.581	702.	0.526	745.	0.559
0.067	2.382	1.816	1.047	1.198	0.913	0.071	1285.	0.964	776.	0.582	703.	0.527	746.	0.559
0.063	2.343	1.786	1.043	1.198	0.913	0.067	1285.	0.963	777.	0.583	704.	0.527	747.	0.560
0.059	2.305	1.756	1.039	1.201	0.915	0.063	1284.	0.963	778.	0.583	704.	0.528	747.	0.560
0.055	2.264	1.725	1.035	1.201	0.915	0.059	1282.	0.961	779.	0.584	705.	0.528	748.	0.561
0.052	2.212	1.686	1.032	1.199	0.914	0.056	1277.	0.957	780.	0.585	706.	0.529	749.	0.561
0.047	2.156	1.643	1.027	1.198	0.913	0.051	1271.	0.952	781.	0.585	707.	0.530	750.	0.562
0.044	2.097	1.598	1.024	1.200	0.914	0.048	1261.	0.945	781.	0.586	707.	0.530	750.	0.562
0.039	2.022	1.542	1.019	1.199	0.915	0.043	1245.	0.933	782.	0.586	708.	0.531	751.	0.563
0.036	1.941	1.479	1.016	1.199	0.914	0.040	1225.	0.918	783.	0.587	708.	0.531	751.	0.563
0.032	1.850	1.411	1.012	1.201	0.916	0.036	1204.	0.903	784.	0.588	709.	0.532	752.	0.564
0.028	1.754	1.338	1.008	1.200	0.915	0.032	1177.	0.883	785.	0.588	710.	0.532	753.	0.564
0.024	1.646	1.255	1.004	1.200	0.915	0.028	1138.	0.853	785.	0.589	711.	0.533	753.	0.565



ORIGINAL PAGE IS  
OF POOR QUALITY

DATE = 9-18-73  
PROJECT NUMBER VA353-218A  
ARO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/R1 049 SHUTTLE TEST  
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GROUP	MODEL	MACH NO.	P0 (PSIA)	T0 (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
21.	139	7.92	147.7	1334.	35.07	-5.07	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	WE/FT (FT-1)	X (IN)	Y (IN)	X/L (IN)	L (IN)			
98.5	0.0161	1.311	0.709	3854.	0.442E-03	0.255E-05	0.668E 06	6.77	0.0	0.30	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/T0	Tw1 (DEG R)	Tw1/T0	Tw2 (DEG R)	Tw2/T0	Tw3 (DEG R)	Tw3/T0
0.019	1.532	1.168	0.999	1.199	0.915	0.023	1093.	0.819	786.	0.589	712.	0.533	754.	0.565
0.014	1.419	1.082	0.994	1.201	0.916	0.018	1040.	0.780	787.	0.590	713.	0.534	755.	0.566
0.009	1.309	0.999	0.989	1.198	0.915	0.013	976.	0.732	788.	0.590	713.	0.535	755.	0.566
0.007	1.213	0.925	0.987	1.197	0.913	0.011	918.	0.688	788.	0.591	714.	0.535	756.	0.567
0.007	1.032	0.786	0.987	1.197	0.914	0.011	909.	0.682	790.	0.592	716.	0.536	757.	0.568

DATE = 9-18-73  
 PROJECT NUMBER VA353-21BA  
 ARJ, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/M1 OH-9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
22.	139	7.92	149.5	1334.	35.07	-5.07	30.00	180.00	0					
T-INF	P-INF	P01	U-INF	U-INF	KHU-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.5	0.0163	1.327	0.717	3854.	0.448E-03	0.255E-05	0.677E 06	4.52	0.0	0.20	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
1.060	0.874	0.658	2.040	1.217	0.917	1.064	1244.	0.932	557.	0.417	543.	0.407	580.	0.435
1.039	0.874	0.658	2.019	1.220	0.918	1.043	1245.	0.933	559.	0.419	545.	0.408	582.	0.436
1.003	0.874	0.657	1.983	1.218	0.916	1.007	1245.	0.933	562.	0.421	547.	0.410	584.	0.438
0.971	0.876	0.660	1.951	1.220	0.919	0.975	1245.	0.933	564.	0.423	552.	0.413	585.	0.439
0.936	0.875	0.658	1.916	1.217	0.916	0.940	1244.	0.933	567.	0.425	554.	0.415	587.	0.440
0.901	0.874	0.657	1.881	1.219	0.917	0.905	1244.	0.933	570.	0.427	557.	0.417	588.	0.441
0.865	0.875	0.658	1.845	1.219	0.918	0.869	1245.	0.933	572.	0.429	563.	0.422	590.	0.442
0.829	0.876	0.659	1.809	1.220	0.919	0.833	1244.	0.933	575.	0.431	567.	0.425	592.	0.444
0.792	0.876	0.659	1.772	1.218	0.917	0.796	1245.	0.933	578.	0.433	570.	0.427	594.	0.445
0.756	0.876	0.659	1.736	1.219	0.918	0.760	1245.	0.933	580.	0.435	574.	0.430	596.	0.446
0.720	0.877	0.660	1.700	1.220	0.919	0.724	1244.	0.933	583.	0.437	577.	0.433	597.	0.448
0.684	0.880	0.662	1.664	1.217	0.916	0.688	1242.	0.931	586.	0.439	578.	0.433	599.	0.449
0.647	1.434	1.060	1.627	1.218	0.917	0.651	1270.	0.952	589.	0.441	580.	0.435	600.	0.450
0.624	3.955	2.984	1.604	1.214	0.916	0.628	1272.	0.953	621.	0.465	618.	0.463	616.	0.462
0.587	3.951	2.981	1.567	1.215	0.917	0.591	1272.	0.954	623.	0.467	620.	0.465	617.	0.463
0.552	3.929	2.964	1.532	1.213	0.915	0.556	1272.	0.954	626.	0.469	623.	0.467	618.	0.463
0.515	3.887	2.935	1.495	1.211	0.914	0.519	1273.	0.954	628.	0.471	626.	0.469	619.	0.464
0.479	3.836	2.896	1.459	1.212	0.915	0.483	1273.	0.955	630.	0.472	628.	0.471	619.	0.464
0.443	3.784	2.855	1.423	1.212	0.914	0.447	1274.	0.955	633.	0.474	630.	0.473	619.	0.464
0.407	3.727	2.814	1.387	1.210	0.913	0.411	1274.	0.955	635.	0.476	633.	0.475	621.	0.465
0.371	3.669	2.768	1.351	1.210	0.913	0.375	1275.	0.956	637.	0.478	636.	0.477	622.	0.466
			1.315	1.210	0.913	0.339	1276.	0.956	639.	0.479	638.	0.479	623.	0.467
			1.296	1.209	0.913	0.320	1276.	0.956	642.	0.481	641.	0.481	625.	0.468
			1.286	1.208	0.912	0.310	1276.	0.957	644.	0.483	644.	0.482	626.	0.469
			1.276	1.209	0.913	0.300	1276.	0.957	646.	0.484	646.	0.484	627.	0.470
			1.272	1.208	0.913	0.296	1276.	0.957	648.	0.486	649.	0.486	627.	0.470
			1.268	1.205	0.910	0.292	1276.	0.957	650.	0.487	651.	0.488	628.	0.471
			1.264	1.206	0.911	0.288	1277.	0.957	652.	0.489	653.	0.490	629.	0.472
0.282	3.354	2.564	1.262	1.208	0.913	0.286	1277.	0.957	654.	0.490	656.	0.491	630.	0.472
0.278	3.362	2.556	1.258	1.206	0.912	0.282	1276.	0.957	656.	0.492	658.	0.493	631.	0.473
0.274	3.372	2.549	1.254	1.206	0.912	0.278	1277.	0.957	658.	0.493	660.	0.495	632.	0.474
0.271	3.361	2.542	1.251	1.206	0.912	0.275	1277.	0.957	660.	0.495	662.	0.497	632.	0.474
0.267	3.352	2.536	1.247	1.207	0.913	0.271	1277.	0.957	662.	0.496	664.	0.498	633.	0.475
0.263	3.337	2.525	1.243	1.206	0.912	0.267	1277.	0.958	664.	0.498	666.	0.500	634.	0.475
0.259	3.324	2.517	1.239	1.206	0.913	0.263	1277.	0.957	666.	0.499	668.	0.501	635.	0.476
0.256	3.313	2.508	1.236	1.204	0.911	0.260	1278.	0.958	668.	0.500	670.	0.502	635.	0.476
0.252	3.299	2.498	1.232	1.205	0.912	0.256	1278.	0.958	669.	0.502	672.	0.504	636.	0.477
0.249	3.285	2.487	1.229	1.205	0.912	0.253	1278.	0.958	671.	0.503	674.	0.505	637.	0.477
0.246	3.272	2.477	1.226	1.205	0.912	0.250	1278.	0.958	673.	0.505	676.	0.507	638.	0.478
0.244	3.259	2.467	1.224	1.204	0.911	0.248	1278.	0.958	675.	0.506	678.	0.508	638.	0.479
0.241	3.248	2.461	1.221	1.204	0.912	0.245	1278.	0.958	677.	0.507	679.	0.509	639.	0.479
0.238	3.237	2.451	1.218	1.204	0.911	0.242	1279.	0.958	678.	0.508	681.	0.510	640.	0.480

DATE = 9-18-73  
 PROJECT NUMBER VA353-21BA  
 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/RI OH9 SHUTTLE TEST  
 PAGE = 2

GROUP	MODEL	MACH NO	PG(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
22.	139	7.92	148.7	1334.	35.07	-5.07	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MC-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.5	0.0163	1.320	0.714	3854.	0.445E-03	0.255E-05	0.673E 06	4.52	0.0	0.20	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TC	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.236	3.224	2.443	1.216	1.203	0.911	0.240	1279.	0.959	680.	0.510	683.	0.512	640.	0.480
0.232	3.211	2.434	1.212	1.205	0.913	0.236	1279.	0.959	682.	0.511	684.	0.513	641.	0.481
0.229	3.198	2.426	1.209	1.205	0.914	0.233	1279.	0.959	683.	0.512	686.	0.514	642.	0.481
0.226	3.183	2.413	1.206	1.203	0.912	0.230	1279.	0.959	685.	0.514	688.	0.515	643.	0.482
0.223	3.166	2.400	1.203	1.202	0.911	0.227	1280.	0.959	687.	0.515	689.	0.517	643.	0.482
0.220	3.152	2.391	1.200	1.204	0.913	0.224	1279.	0.959	688.	0.516	691.	0.518	644.	0.483
0.217	3.138	2.381	1.197	1.205	0.914	0.221	1280.	0.960	690.	0.517	692.	0.519	645.	0.483
0.215	3.123	2.369	1.195	1.203	0.912	0.219	1280.	0.960	691.	0.518	694.	0.520	645.	0.484
0.211	3.108	2.356	1.191	1.204	0.913	0.215	1281.	0.960	693.	0.519	695.	0.521	646.	0.484
0.209	3.092	2.345	1.189	1.200	0.911	0.213	1281.	0.960	695.	0.521	697.	0.522	647.	0.485
0.207	3.077	2.336	1.187	1.203	0.913	0.211	1280.	0.960	696.	0.522	698.	0.523	647.	0.485
0.205	3.063	2.325	1.185	1.202	0.912	0.209	1281.	0.960	698.	0.523	700.	0.525	648.	0.486
0.202	3.051	2.316	1.182	1.203	0.913	0.206	1281.	0.961	699.	0.524	701.	0.525	649.	0.486
0.199	3.036	2.306	1.179	1.204	0.914	0.203	1282.	0.961	701.	0.525	702.	0.526	649.	0.487
0.196	3.021	2.293	1.176	1.202	0.912	0.200	1282.	0.961	702.	0.526	704.	0.528	650.	0.487
0.193	3.004	2.280	1.173	1.202	0.912	0.197	1282.	0.961	703.	0.527	705.	0.529	651.	0.488
0.190	2.987	2.269	1.170	1.203	0.914	0.194	1282.	0.961	705.	0.528	707.	0.530	651.	0.488
0.187	2.968	2.255	1.167	1.202	0.913	0.191	1282.	0.961	706.	0.529	708.	0.531	652.	0.489
0.183	2.949	2.240	1.163	1.201	0.912	0.187	1282.	0.961	708.	0.530	709.	0.532	652.	0.489
0.179	2.928	2.226	1.159	1.201	0.913	0.183	1283.	0.962	709.	0.531	710.	0.532	653.	0.490
0.176	2.909	2.211	1.156	1.203	0.914	0.180	1283.	0.962	710.	0.533	712.	0.533	654.	0.490
0.172	2.887	2.194	1.152	1.202	0.914	0.176	1284.	0.963	712.	0.534	713.	0.534	654.	0.490
0.169	2.865	2.178	1.149	1.201	0.913	0.173	1284.	0.963	713.	0.535	714.	0.535	655.	0.491
0.166	2.843	2.161	1.146	1.202	0.914	0.170	1284.	0.962	714.	0.536	715.	0.536	656.	0.491
0.163	2.822	2.145	1.143	1.201	0.913	0.167	1284.	0.963	716.	0.537	716.	0.537	656.	0.492
0.160	2.801	2.129	1.140	1.201	0.913	0.164	1285.	0.963	717.	0.538	717.	0.538	657.	0.492
0.156	2.780	2.113	1.136	1.201	0.913	0.160	1285.	0.963	718.	0.538	718.	0.539	657.	0.493
0.153	2.759	2.097	1.133	1.201	0.913	0.157	1285.	0.964	720.	0.539	720.	0.539	658.	0.493
0.150	2.736	2.080	1.130	1.200	0.912	0.154	1286.	0.964	721.	0.540	721.	0.540	659.	0.494
0.147	2.715	2.065	1.127	1.202	0.914	0.151	1286.	0.964	722.	0.541	722.	0.541	659.	0.494
0.144	2.693	2.047	1.124	1.200	0.912	0.148	1286.	0.964	723.	0.542	723.	0.542	660.	0.495
0.141	2.675	2.035	1.121	1.200	0.913	0.145	1287.	0.964	725.	0.543	724.	0.543	660.	0.495
0.138	2.654	2.019	1.118	1.199	0.912	0.142	1287.	0.965	726.	0.544	725.	0.543	661.	0.495
0.135	2.637	2.006	1.115	1.200	0.913	0.139	1287.	0.965	727.	0.545	726.	0.544	662.	0.496
0.133	2.616	1.993	1.113	1.198	0.912	0.137	1288.	0.965	728.	0.546	727.	0.545	662.	0.496
0.130	2.596	1.976	1.110	1.198	0.912	0.134	1288.	0.965	729.	0.547	728.	0.546	663.	0.497
0.127	2.578	1.962	1.107	1.199	0.912	0.131	1288.	0.966	731.	0.548	729.	0.547	663.	0.497
0.124	2.559	1.948	1.104	1.199	0.912	0.128	1289.	0.966	732.	0.549	730.	0.547	664.	0.498
0.121	2.540	1.934	1.101	1.198	0.912	0.125	1289.	0.966	733.	0.549	731.	0.548	664.	0.498
0.119	2.521	1.920	1.099	1.200	0.914	0.123	1289.	0.966	734.	0.550	732.	0.549	665.	0.498
0.116	2.501	1.903	1.096	1.198	0.912	0.120	1289.	0.966	735.	0.551	733.	0.550	666.	0.499
0.113	2.480	1.889	1.093	1.196	0.911	0.117	1290.	0.967	736.	0.552	734.	0.550	666.	0.499

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GROUP	MODEL	MACH NO.	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
22.	139	7.92	147.9	1334.	35.08	-5.08	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	ML-INF	RE/FT	X	Y					
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)					
98.5	0.0162	1.313	0.710	3854.	0.443E-03	0.255E-05	0.669E 06	4.52	0.0					
X/L	L													
0.20	22.58													
ZP1	PR1	PP1/PO1	ZP2	PP2	PP2/PG1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.110	2.464	1.876	1.090	1.199	0.913	0.114	1290.	0.967	737.	0.553	735.	0.551	667.	0.500
0.108	2.441	1.860	1.088	1.199	0.914	0.112	1290.	0.967	735.	0.554	736.	0.552	667.	0.500
0.105	2.422	1.846	1.085	1.197	0.912	0.109	1291.	0.967	740.	0.554	737.	0.553	668.	0.501
0.102	2.404	1.832	1.082	1.199	0.914	0.106	1291.	0.968	741.	0.555	738.	0.553	668.	0.501
0.099	2.383	1.816	1.079	1.198	0.913	0.103	1291.	0.968	742.	0.556	739.	0.554	669.	0.501
0.093	2.308	1.761	1.073	1.197	0.913	0.097	1292.	0.969	746.	0.559	742.	0.556	671.	0.503
0.090	2.301	1.755	1.070	1.198	0.914	0.094	1293.	0.969	747.	0.560	743.	0.557	672.	0.504
0.086	2.286	1.744	1.066	1.198	0.914	0.090	1293.	0.969	748.	0.561	743.	0.557	672.	0.504
0.082	2.270	1.731	1.062	1.197	0.913	0.086	1294.	0.970	749.	0.562	744.	0.558	673.	0.504
0.080	2.251	1.718	1.060	1.197	0.914	0.084	1294.	0.970	750.	0.562	745.	0.558	673.	0.505
0.078	2.231	1.701	1.058	1.197	0.913	0.082	1295.	0.970	751.	0.563	745.	0.559	674.	0.505
0.075	2.212	1.687	1.055	1.198	0.914	0.079	1295.	0.971	752.	0.564	746.	0.559	675.	0.506
0.072	2.192	1.672	1.052	1.198	0.914	0.076	1296.	0.971	753.	0.565	746.	0.559	675.	0.506
0.069	2.171	1.656	1.049	1.197	0.913	0.073	1295.	0.970	754.	0.565	747.	0.559	676.	0.506
0.067	2.148	1.639	1.047	1.197	0.913	0.071	1296.	0.971	755.	0.566	747.	0.560	676.	0.507
0.064	2.129	1.623	1.044	1.199	0.914	0.068	1296.	0.972	756.	0.567	748.	0.561	677.	0.507
0.061	2.106	1.605	1.041	1.199	0.914	0.065	1295.	0.970	757.	0.567	749.	0.561	677.	0.507
0.058	2.078	1.583	1.038	1.200	0.914	0.062	1294.	0.970	758.	0.568	749.	0.562	678.	0.508
0.053	2.054	1.562	1.033	1.202	0.915	0.057	1293.	0.969	759.	0.569	750.	0.562	678.	0.508
0.051	2.021	1.537	1.031	1.204	0.916	0.055	1291.	0.967	760.	0.569	751.	0.562	678.	0.508
0.048	1.987	1.510	1.028	1.204	0.914	0.052	1286.	0.964	761.	0.570	752.	0.563	679.	0.509
0.045	1.948	1.478	1.025	1.206	0.915	0.049	1281.	0.959	762.	0.571	752.	0.564	679.	0.509
0.042	1.909	1.446	1.022	1.207	0.914	0.046	1274.	0.954	763.	0.571	753.	0.564	680.	0.509
0.039	1.866	1.412	1.019	1.210	0.915	0.043	1265.	0.948	764.	0.572	754.	0.565	680.	0.510
0.037	1.819	1.374	1.017	1.210	0.914	0.041	1255.	0.940	765.	0.573	755.	0.565	681.	0.510
0.034	1.768	1.335	1.014	1.211	0.914	0.038	1242.	0.930	766.	0.573	756.	0.566	682.	0.511
0.031	1.709	1.288	1.011	1.213	0.914	0.035	1225.	0.917	766.	0.574	756.	0.567	682.	0.511
0.028	1.650	1.241	1.008	1.216	0.915	0.032	1206.	0.904	767.	0.575	757.	0.567	683.	0.511
0.025	1.576	1.185	1.005	1.216	0.914	0.029	1180.	0.884	768.	0.575	758.	0.568	683.	0.512
0.022	1.498	1.126	1.002	1.217	0.914	0.026	1150.	0.861	769.	0.576	759.	0.568	684.	0.512
0.018	1.421	1.066	0.998	1.218	0.914	0.022	1117.	0.837	770.	0.577	760.	0.569	684.	0.513
0.015	1.342	1.006	0.995	1.220	0.915	0.019	1083.	0.811	771.	0.577	760.	0.569	685.	0.513
0.012	1.268	0.950	0.992	1.221	0.915	0.016	1048.	0.785	772.	0.578	761.	0.570	686.	0.514
0.009	1.195	0.895	0.989	1.220	0.914	0.013	1011.	0.757	773.	0.579	762.	0.571	686.	0.514
0.007	1.130	0.846	0.987	1.221	0.914	0.011	967.	0.724	773.	0.579	763.	0.571	687.	0.514

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GROUP	MODEL	MACH NO	PO(PSIA)	TO( DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
23.	139	7.92	153.4	1338.	30.04	-0.04	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	PC-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.8	0.0168	1.363	0.737	3860.	0.458E-03	0.256E-05	0.692E 06	11.29	0.0	0.50	22.58			
ZP1 (IN)	PP1 (PSIA)	PPI/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	T*1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
			2.216	1.235	0.907	1.240	1249.	0.933	541.	0.405	526.	0.393	558.	0.417
			2.197	1.236	0.908	1.221	1249.	0.934	544.	0.407	527.	0.394	559.	0.418
			2.163	1.236	0.908	1.187	1250.	0.934	546.	0.408	529.	0.395	561.	0.419
			2.128	1.238	0.909	1.152	1250.	0.934	549.	0.410	530.	0.396	562.	0.420
			2.093	1.238	0.909	1.117	1249.	0.934	552.	0.412	532.	0.397	561.	0.419
			2.058	1.236	0.908	1.082	1249.	0.934	554.	0.414	533.	0.398	562.	0.420
			2.023	1.237	0.909	1.047	1250.	0.934	557.	0.416	534.	0.399	562.	0.420
			1.986	1.238	0.910	1.010	1248.	0.932	560.	0.418	535.	0.400	562.	0.420
			1.950	1.238	0.910	0.974	1261.	0.942	563.	0.420	537.	0.401	564.	0.422
0.956	4.470	3.306	1.936	1.228	0.909	0.960	1261.	0.942	561.	0.442	549.	0.410	579.	0.433
0.920	4.444	3.319	1.900	1.228	0.909	0.924	1260.	0.942	564.	0.444	550.	0.411	580.	0.433
0.889	4.449	3.332	1.869	1.227	0.909	0.893	1260.	0.942	597.	0.446	552.	0.412	581.	0.434
0.853	4.522	3.351	1.833	1.226	0.909	0.857	1261.	0.942	595.	0.448	552.	0.413	582.	0.435
0.819	4.545	3.370	1.799	1.226	0.909	0.823	1261.	0.942	602.	0.450	553.	0.414	582.	0.435
0.782	4.569	3.393	1.762	1.224	0.909	0.786	1261.	0.942	604.	0.451	555.	0.414	583.	0.436
0.746	4.602	3.419	1.726	1.223	0.909	0.750	1260.	0.941	606.	0.453	556.	0.415	584.	0.437
0.710	4.651	3.460	1.690	1.222	0.910	0.714	1260.	0.942	609.	0.455	557.	0.416	585.	0.437
0.674	4.711	3.507	1.654	1.224	0.911	0.678	1260.	0.942	611.	0.457	557.	0.417	587.	0.438
0.638	4.751	3.540	1.618	1.220	0.909	0.642	1260.	0.941	614.	0.459	559.	0.418	588.	0.439
0.602	4.773	3.558	1.582	1.219	0.909	0.606	1260.	0.941	616.	0.460	560.	0.418	589.	0.440
0.565	4.784	3.571	1.545	1.218	0.910	0.569	1261.	0.942	618.	0.462	560.	0.419	590.	0.441
0.529	4.778	3.569	1.509	1.218	0.910	0.533	1261.	0.942	620.	0.464	561.	0.419	591.	0.441
0.493	4.748	3.551	1.473	1.218	0.911	0.497	1261.	0.942	623.	0.465	563.	0.420	591.	0.442
0.457	4.700	3.518	1.437	1.215	0.910	0.461	1262.	0.943	625.	0.467	564.	0.421	592.	0.443
0.420	4.646	3.480	1.400	1.214	0.910	0.424	1262.	0.943	627.	0.469	564.	0.422	593.	0.443
0.384	4.580	3.435	1.364	1.210	0.912	0.388	1262.	0.944	629.	0.470	565.	0.422	594.	0.444
0.348	4.499	3.376	1.328	1.212	0.910	0.352	1263.	0.944	631.	0.472	567.	0.424	595.	0.445
0.312	4.412	3.315	1.292	1.209	0.909	0.316	1264.	0.944	633.	0.473	569.	0.425	597.	0.446
0.276	4.317	3.248	1.256	1.211	0.912	0.280	1265.	0.945	636.	0.475	570.	0.426	598.	0.447
			1.220	1.211	0.912	0.244	1266.	0.946	638.	0.477	571.	0.427	599.	0.447
			1.198	1.208	0.911	0.222	1266.	0.946	640.	0.478	572.	0.427	599.	0.448
			1.193	1.206	0.910	0.217	1266.	0.947	642.	0.479	572.	0.428	599.	0.448
			1.188	1.206	0.911	0.212	1267.	0.947	644.	0.481	573.	0.428	600.	0.448
0.205	3.946	2.984	1.185	1.205	0.911	0.209	1267.	0.947	645.	0.482	573.	0.429	601.	0.449
0.200	3.918	2.966	1.180	1.207	0.914	0.204	1267.	0.947	647.	0.484	574.	0.429	601.	0.449
0.194	3.887	2.945	1.174	1.202	0.911	0.198	1267.	0.947	649.	0.485	575.	0.430	602.	0.450
0.189	3.863	2.931	1.169	1.200	0.911	0.193	1268.	0.948	651.	0.487	576.	0.430	602.	0.450
0.184	3.837	2.913	1.164	1.200	0.911	0.188	1268.	0.948	653.	0.488	576.	0.431	603.	0.450
0.176	3.813	2.898	1.156	1.202	0.914	0.180	1268.	0.948	655.	0.489	577.	0.432	603.	0.451
0.171	3.782	2.877	1.151	1.197	0.911	0.175	1268.	0.948	657.	0.491	578.	0.432	604.	0.451
0.167	3.759	2.863	1.147	1.198	0.912	0.171	1270.	0.949	658.	0.492	579.	0.433	604.	0.452
0.163	3.732	2.845	1.143	1.195	0.911	0.167	1270.	0.949	660.	0.493	580.	0.434	605.	0.452

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GROUP	MODEL	MACH NO	PG (PSIA)	TO (DEG W)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
23.	139	7.92	147.6	1338.	30.05	-0.05	30.00	180.00	0					
I-INF	P-INF	P01	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.8	0.0161	1.310	0.708	3860.	0.441E-03	0.256E-05	0.665E 06	11.29	0.0	0.50	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	IT2	IT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.158	3.701	2.825	1.138	1.195	0.912	0.162	1270.	0.949	662.	0.495	581.	0.434	606.	0.453
0.154	3.672	2.804	1.134	1.195	0.913	0.158	1270.	0.949	663.	0.496	582.	0.435	606.	0.453
0.150	3.639	2.783	1.130	1.191	0.911	0.154	1271.	0.950	665.	0.497	583.	0.436	607.	0.454
0.147	3.612	2.764	1.127	1.191	0.912	0.151	1271.	0.950	667.	0.498	584.	0.436	607.	0.454
0.142	3.581	2.744	1.122	1.193	0.914	0.146	1272.	0.951	668.	0.500	585.	0.437	608.	0.454
0.138	3.544	2.716	1.118	1.188	0.911	0.142	1272.	0.951	670.	0.501	586.	0.438	608.	0.454
0.132	3.506	2.690	1.112	1.187	0.911	0.136	1273.	0.951	672.	0.502	586.	0.438	608.	0.455
0.126	3.468	2.664	1.106	1.189	0.914	0.130	1274.	0.952	673.	0.503	587.	0.439	609.	0.455
0.122	3.421	2.629	1.102	1.185	0.911	0.126	1274.	0.952	675.	0.504	588.	0.439	609.	0.455
0.117	3.377	2.598	1.097	1.185	0.912	0.121	1274.	0.952	676.	0.506	589.	0.440	610.	0.456
0.113	3.330	2.566	1.093	1.185	0.913	0.117	1274.	0.952	678.	0.507	590.	0.441	610.	0.456
0.109	3.280	2.529	1.089	1.183	0.912	0.113	1275.	0.953	680.	0.508	590.	0.441	611.	0.456
0.103	3.228	2.491	1.083	1.184	0.913	0.107	1275.	0.953	681.	0.509	591.	0.442	611.	0.457
0.097	3.165	2.443	1.077	1.180	0.911	0.101	1275.	0.953	682.	0.510	592.	0.442	612.	0.457
0.091	3.103	2.399	1.071	1.184	0.915	0.095	1276.	0.953	684.	0.511	593.	0.443	613.	0.458
0.085	3.034	2.347	1.065	1.184	0.916	0.089	1276.	0.953	685.	0.512	593.	0.443	613.	0.458
0.080	2.964	2.296	1.060	1.189	0.921	0.084	1275.	0.953	687.	0.513	594.	0.444	614.	0.459
0.076	2.894	2.243	1.056	1.191	0.924	0.080	1274.	0.952	688.	0.514	595.	0.445	615.	0.459
0.072	2.830	2.196	1.052	1.198	0.929	0.076	1274.	0.952	690.	0.515	596.	0.445	616.	0.460
0.068	2.765	2.148	1.048	1.204	0.936	0.072	1272.	0.951	691.	0.516	597.	0.446	616.	0.461
0.064	2.694	2.096	1.044	1.215	0.945	0.068	1268.	0.948	692.	0.518	598.	0.447	617.	0.461
0.060	2.611	2.031	1.040	1.221	0.950	0.064	1264.	0.944	694.	0.519	599.	0.447	618.	0.462
0.055	2.531	1.972	1.035	1.234	0.961	0.059	1256.	0.939	695.	0.520	599.	0.448	619.	0.462
0.052	2.434	1.897	1.032	1.246	0.971	0.056	1246.	0.932	696.	0.521	600.	0.449	619.	0.463
0.049	2.332	1.819	1.029	1.262	0.985	0.053	1235.	0.923	698.	0.522	601.	0.450	620.	0.464
0.046	2.232	1.743	1.026	1.282	1.001	0.050	1221.	0.912	699.	0.523	603.	0.450	621.	0.464
0.042	2.126	1.662	1.022	1.318	1.030	0.046	1204.	0.900	700.	0.523	604.	0.451	622.	0.465
0.040	2.015	1.576	1.020	1.364	1.067	0.044	1185.	0.885	702.	0.524	605.	0.452	622.	0.465
0.037	1.904	1.491	1.017	1.421	1.113	0.041	1165.	0.871	703.	0.525	606.	0.453	623.	0.466
0.034	1.797	1.409	1.014	1.493	1.171	0.038	1141.	0.853	704.	0.526	607.	0.454	624.	0.466
0.031	1.691	1.327	1.011	1.593	1.250	0.035	1118.	0.836	705.	0.527	608.	0.455	624.	0.467
0.027	1.583	1.242	1.007	1.686	1.323	0.031	1091.	0.815	707.	0.528	610.	0.456	625.	0.467
0.024	16.028	12.598	1.004	16.358	12.858	0.028	1057.	0.790	708.	0.529	611.	0.457	626.	0.468
0.021	1.373	1.080	1.001	1.847	1.531	0.025	1025.	0.766	709.	0.530	613.	0.458	626.	0.468
0.019	1.278	1.007	0.999	2.062	1.624	0.023	994.	0.743	710.	0.531	614.	0.459	627.	0.469
0.015	1.196	0.942	0.995	2.191	1.726	0.019	964.	0.720	711.	0.532	616.	0.460	628.	0.469
0.011	15.680	12.360	0.991	16.910	13.329	0.015	925.	0.691	713.	0.533	617.	0.461	628.	0.469
0.008	1.047	0.826	0.988	2.512	1.983	0.012	888.	0.664	714.	0.533	618.	0.462	629.	0.470
0.007	0.979	0.773	0.987	2.583	2.041	0.011	861.	0.643	715.	0.534	620.	0.463	629.	0.470
0.007	0.702	0.558	0.987	2.623	2.085	0.011	851.	0.636	724.	0.541	626.	0.468	634.	0.474

ORIGINAL PAGE IS  
OF POOR QUALITY

DATE = 9-18-73  
PROJECT NUMBER VA353-21BA  
ARO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/R1 OH9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	POI(PSIA)	TC(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
24.	139	7.95	249.8	1350.	30.06	-0.06	30.00	180.00	0					
T-INF	P-INF	POI	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
99.0	0.0267	2.181	1.179	3878.	0.726E-03	0.256E-05	0.110E 07	9.03	0.0	0.40	22.58			
ZH1	PP1	PP1/POI	ZH2	PP2	PP2/POI	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
1.242	1.410	0.646	2.222	1.988	0.911	1.246	1260.	0.933	534.	0.395	522.	0.387	551.	0.408
1.222	1.413	0.648	2.202	1.987	0.911	1.226	1260.	0.933	536.	0.397	523.	0.387	555.	0.411
1.188	1.416	0.650	2.168	1.990	0.912	1.192	1260.	0.933	539.	0.399	524.	0.388	558.	0.414
1.153	1.416	0.649	2.133	1.988	0.912	1.157	1260.	0.933	542.	0.402	525.	0.389	561.	0.416
1.117	1.415	0.649	2.097	1.987	0.911	1.121	1260.	0.933	545.	0.404	527.	0.390	564.	0.418
1.083	1.419	0.651	2.063	1.989	0.912	1.087	1260.	0.933	548.	0.406	528.	0.391	567.	0.420
1.047	1.419	0.651	2.027	1.989	0.912	1.051	1260.	0.933	552.	0.409	530.	0.393	570.	0.422
1.010	1.417	0.650	1.990	1.986	0.911	1.014	1260.	0.933	555.	0.411	532.	0.394	573.	0.424
0.974	1.417	0.650	1.954	1.990	0.913	0.978	1260.	0.933	558.	0.413	534.	0.396	576.	0.427
0.936	1.417	0.650	1.918	1.987	0.912	0.942	1260.	0.933	561.	0.416	536.	0.397	580.	0.429
0.905	1.419	0.651	1.885	1.990	0.913	0.909	1259.	0.933	564.	0.418	538.	0.398	584.	0.432
0.869	1.759	0.807	1.849	1.987	0.912	0.873	1265.	0.937	567.	0.420	539.	0.399	588.	0.435
0.865	5.982	2.748	1.845	1.984	0.911	0.869	1270.	0.941	600.	0.444	554.	0.410	621.	0.460
0.832	6.669	3.065	1.812	1.983	0.911	0.836	1273.	0.943	603.	0.447	555.	0.411	624.	0.462
0.796	7.224	3.320	1.776	1.985	0.912	0.800	1273.	0.943	606.	0.449	556.	0.412	626.	0.464
0.760	7.445	3.422	1.740	1.985	0.913	0.764	1273.	0.943	609.	0.451	557.	0.412	630.	0.467
0.724	7.553	3.471	1.704	1.986	0.913	0.728	1273.	0.943	612.	0.453	558.	0.413	634.	0.469
0.688	7.691	3.534	1.668	1.988	0.913	0.692	1273.	0.943	614.	0.455	559.	0.414	636.	0.471
0.652	7.649	3.538	1.632	1.981	0.910	0.656	1273.	0.943	617.	0.457	560.	0.415	638.	0.473
0.617	7.613	3.500	1.597	1.987	0.913	0.621	1274.	0.944	620.	0.459	561.	0.416	638.	0.473
0.581	7.544	3.468	1.561	1.984	0.912	0.585	1274.	0.944	623.	0.461	561.	0.416	638.	0.473
0.544	7.497	3.447	1.524	1.987	0.913	0.548	1275.	0.944	625.	0.463	562.	0.416	638.	0.473
0.508	7.431	3.416	1.488	1.985	0.913	0.512	1275.	0.944	628.	0.465	562.	0.416	640.	0.474
0.473	7.332	3.371	1.453	1.986	0.913	0.477	1275.	0.944	631.	0.467	563.	0.417	641.	0.475
0.437	7.219	3.320	1.417	1.983	0.912	0.441	1275.	0.945	633.	0.469	563.	0.417	642.	0.476
0.401	7.095	3.263	1.381	1.982	0.912	0.405	1276.	0.945	636.	0.471	564.	0.418	644.	0.477
0.364	6.970	3.205	1.344	1.986	0.913	0.368	1277.	0.946	638.	0.473	564.	0.418	645.	0.478
0.329	6.829	3.142	1.309	1.983	0.912	0.333	1277.	0.946	641.	0.475	565.	0.419	647.	0.479
0.293	6.688	3.077	1.273	1.986	0.913	0.297	1277.	0.946	643.	0.476	567.	0.420	649.	0.481
			1.237	1.986	0.913	0.261	1278.	0.947	645.	0.478	570.	0.422	651.	0.482
			1.212	1.985	0.913	0.236	1279.	0.948	648.	0.480	572.	0.423	652.	0.483
			1.202	1.987	0.914	0.226	1280.	0.948	650.	0.482	573.	0.425	653.	0.484
0.218	6.269	2.886	1.198	1.986	0.914	0.222	1280.	0.948	653.	0.483	575.	0.426	655.	0.485
0.213	6.229	2.866	1.193	1.984	0.913	0.217	1280.	0.948	655.	0.485	577.	0.427	656.	0.486
0.209	6.196	2.851	1.189	1.987	0.914	0.213	1280.	0.948	657.	0.487	579.	0.429	657.	0.487
0.206	6.173	2.840	1.186	1.987	0.914	0.210	1281.	0.949	659.	0.488	580.	0.430	659.	0.488
0.203	6.146	2.829	1.183	1.984	0.913	0.207	1281.	0.949	662.	0.490	581.	0.431	660.	0.489
0.200	6.119	2.815	1.180	1.986	0.913	0.204	1281.	0.949	664.	0.492	583.	0.432	661.	0.490
0.196	6.088	2.802	1.176	1.984	0.913	0.200	1281.	0.949	666.	0.493	584.	0.433	663.	0.491
0.194	6.057	2.786	1.174	1.982	0.912	0.198	1281.	0.949	668.	0.495	585.	0.434	665.	0.492
0.191	6.032	2.776	1.171	1.985	0.913	0.195	1282.	0.949	670.	0.496	587.	0.435	666.	0.493
0.189	6.006	2.764	1.169	1.982	0.912	0.193	1282.	0.949	672.	0.498	588.	0.436	668.	0.495

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 PROJECT NUMBER VA353-21BA  
 ARJ INC  
 ARNOLD AIR FORCE STATION, TENN  
 NASA/R1 0-9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
24.	139	7.95	248.7	1350.7	30.07	-0.07	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
99.0	0.0265	2.171	1.174	3878.	0.723E-03	0.256E-05	0.109E 07	9.03	0.0	0.40	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	2P2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
0.185	5.973	2.751	1.165	1.982	0.913	0.184	1283.	0.950	674.	0.499	589.	0.437	669.	0.496
0.183	5.947	2.738	1.163	1.985	0.914	0.187	1282.	0.950	676.	0.501	590.	0.437	671.	0.497
0.179	5.917	2.726	1.159	1.984	0.914	0.183	1283.	0.950	678.	0.502	592.	0.438	672.	0.498
0.176	5.879	2.707	1.156	1.982	0.913	0.180	1282.	0.950	680.	0.504	593.	0.439	674.	0.499
0.173	5.838	2.688	1.153	1.980	0.912	0.177	1283.	0.950	682.	0.505	594.	0.440	675.	0.500
0.170	5.798	2.672	1.150	1.981	0.913	0.174	1284.	0.951	684.	0.507	595.	0.441	677.	0.501
0.167	5.761	2.655	1.147	1.982	0.914	0.171	1284.	0.951	686.	0.508	597.	0.442	678.	0.502
0.163	5.722	2.636	1.143	1.980	0.912	0.167	1284.	0.951	688.	0.510	598.	0.443	680.	0.504
0.161	5.673	2.614	1.141	1.979	0.912	0.165	1285.	0.952	690.	0.511	599.	0.444	681.	0.505
0.157	5.628	2.593	1.137	1.982	0.914	0.161	1285.	0.952	692.	0.512	600.	0.444	683.	0.506
0.154	5.576	2.570	1.134	1.981	0.913	0.158	1285.	0.952	694.	0.514	601.	0.445	684.	0.507
0.151	5.526	2.546	1.131	1.980	0.913	0.155	1286.	0.952	695.	0.515	602.	0.446	685.	0.508
0.147	5.469	2.521	1.127	1.982	0.914	0.151	1286.	0.953	697.	0.516	603.	0.447	687.	0.509
0.145	5.411	2.495	1.125	1.981	0.913	0.149	1287.	0.953	699.	0.518	605.	0.448	688.	0.510
0.142	5.360	2.471	1.122	1.980	0.913	0.146	1286.	0.953	701.	0.519	606.	0.449	689.	0.511
0.139	5.309	2.448	1.119	1.979	0.912	0.143	1286.	0.953	702.	0.520	607.	0.450	690.	0.511
0.136	5.263	2.425	1.116	1.981	0.913	0.140	1287.	0.954	704.	0.522	608.	0.450	692.	0.512
0.134	5.213	2.402	1.114	1.980	0.912	0.138	1287.	0.953	706.	0.523	609.	0.451	693.	0.513
0.131	5.166	2.381	1.111	1.981	0.913	0.135	1287.	0.953	708.	0.524	610.	0.452	694.	0.514
0.128	5.120	2.361	1.108	1.981	0.913	0.132	1288.	0.954	709.	0.525	611.	0.453	695.	0.515
0.125	5.075	2.339	1.105	1.980	0.913	0.129	1288.	0.954	711.	0.527	613.	0.454	696.	0.516
0.122	5.027	2.317	1.102	1.980	0.913	0.126	1288.	0.954	712.	0.528	614.	0.455	697.	0.516
0.119	4.977	2.294	1.099	1.980	0.913	0.123	1288.	0.954	714.	0.529	615.	0.456	698.	0.517
0.116	4.928	2.272	1.096	1.980	0.913	0.120	1288.	0.954	716.	0.530	616.	0.456	699.	0.518
0.114	4.877	2.248	1.094	1.981	0.913	0.118	1288.	0.954	717.	0.531	617.	0.457	700.	0.519
0.111	4.830	2.227	1.091	1.980	0.913	0.115	1288.	0.954	719.	0.532	619.	0.458	701.	0.519
0.108	4.779	2.203	1.088	1.979	0.913	0.112	1288.	0.954	720.	0.534	620.	0.459	702.	0.520
0.105	4.727	2.179	1.085	1.979	0.913	0.109	1289.	0.954	722.	0.535	621.	0.460	703.	0.521
0.101	4.675	2.155	1.081	1.980	0.913	0.105	1289.	0.955	723.	0.536	623.	0.461	704.	0.522
0.098	4.618	2.128	1.078	1.979	0.912	0.102	1288.	0.954	725.	0.537	624.	0.462	705.	0.522
0.095	4.559	2.102	1.075	1.979	0.913	0.099	1288.	0.954	726.	0.538	625.	0.463	706.	0.523
0.093	4.501	2.075	1.073	1.979	0.912	0.097	1288.	0.954	728.	0.539	627.	0.464	707.	0.524
0.090	4.449	2.051	1.070	1.979	0.913	0.094	1289.	0.955	729.	0.540	628.	0.465	708.	0.524
0.086	4.394	2.026	1.066	1.981	0.913	0.090	1289.	0.955	731.	0.541	630.	0.466	709.	0.525
0.083	4.340	2.001	1.063	1.979	0.912	0.087	1289.	0.955	732.	0.542	631.	0.468	709.	0.526
0.080	4.283	1.974	1.060	1.979	0.913	0.084	1289.	0.955	734.	0.543	633.	0.469	710.	0.526
0.077	4.218	1.944	1.057	1.979	0.913	0.081	1289.	0.955	735.	0.544	634.	0.470	711.	0.527
0.074	4.153	1.915	1.054	1.980	0.913	0.078	1290.	0.956	736.	0.545	635.	0.470	712.	0.528
0.070	4.083	1.883	1.050	1.979	0.913	0.074	1290.	0.955	738.	0.546	636.	0.471	713.	0.528
0.067	4.008	1.847	1.047	1.980	0.913	0.071	1289.	0.955	739.	0.547	637.	0.472	714.	0.529
0.064	3.928	1.812	1.044	1.979	0.913	0.068	1288.	0.954	740.	0.548	639.	0.473	715.	0.530
0.061	3.853	1.777	1.041	1.978	0.912	0.065	1287.	0.953	742.	0.549	640.	0.474	716.	0.531



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GROUP	MODEL	MACH NO	PC(PSIA)	TC(DEG R)	ALPHA-MOUEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
24.	139	7.95	248.3	1350.	30.07	-0.07	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	O-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
99.0	0.0265	2.167	1.172	3878.	0.722E-03	0.256E-05	0.109E 07	9.03	0.0	0.40	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/T0	Tw1 (DEG R)	Tw1/T0	Tw2 (DEG R)	Tw2/T0	Tw3 (DEG R)	Tw3/T0
0.059	3.773	1.741	1.039	1.981	0.914	0.063	1285.	0.952	743.	0.550	641.	0.475	717.	0.531
0.057	3.690	1.701	1.037	1.981	0.913	0.061	1282.	0.950	744.	0.551	642.	0.475	718.	0.532
0.054	3.598	1.659	1.034	1.980	0.913	0.058	1278.	0.947	746.	0.552	643.	0.476	719.	0.532
0.051	3.502	1.615	1.031	1.982	0.914	0.055	1273.	0.943	747.	0.553	644.	0.477	720.	0.533
0.048	3.398	1.566	1.028	1.981	0.913	0.052	1267.	0.938	748.	0.554	645.	0.478	720.	0.534
0.045	3.299	1.520	1.025	1.984	0.914	0.049	1260.	0.933	750.	0.555	646.	0.479	721.	0.534
0.042	3.192	1.471	1.022	1.982	0.913	0.046	1252.	0.928	751.	0.556	647.	0.479	722.	0.535
0.039	3.074	1.418	1.019	1.985	0.914	0.043	1240.	0.918	752.	0.557	648.	0.480	723.	0.535
0.036	2.947	1.357	1.016	1.986	0.914	0.040	1226.	0.908	753.	0.558	649.	0.481	723.	0.536
0.033	2.806	1.292	1.013	1.983	0.913	0.037	1210.	0.897	755.	0.559	650.	0.482	724.	0.537
0.031	2.667	1.228	1.011	1.987	0.915	0.035	1195.	0.886	756.	0.560	651.	0.482	725.	0.537
0.028	2.510	1.159	1.008	1.985	0.914	0.032	1173.	0.870	757.	0.561	652.	0.483	726.	0.538
0.025	2.360	1.087	1.005	1.984	0.914	0.029	1154.	0.855	758.	0.562	652.	0.484	727.	0.539
0.022	2.207	1.016	1.002	1.986	0.914	0.026	1130.	0.837	759.	0.563	653.	0.484	728.	0.539
0.018	2.042	0.940	0.998	1.986	0.914	0.022	1100.	0.815	760.	0.564	654.	0.485	728.	0.540
0.015	1.866	0.868	0.995	1.987	0.914	0.019	1068.	0.792	762.	0.565	655.	0.486	729.	0.541
0.012	1.740	0.801	0.992	1.986	0.914	0.016	1031.	0.764	763.	0.565	657.	0.487	730.	0.541
0.009	1.599	0.736	0.989	1.984	0.913	0.013	978.	0.725	764.	0.566	658.	0.487	731.	0.542
0.007	1.480	0.681	0.987	1.987	0.914	0.011	953.	0.706	765.	0.567	658.	0.488	732.	0.542
0.007	1.264	0.581	0.987	1.984	0.913	0.011	943.	0.699	768.	0.569	661.	0.490	734.	0.544

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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
25.	139	7.95	251.4	1339.	30.03	-0.03	30.00	180.00	0					
T-INF	P-INF	P01	G-INF	U-INF	WMO-INF	MC-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.2	0.0268	2.195	1.187	3663.	0.737E-03	0.254E-05	0.112E 07	11.29	0.0	0.50	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/T0	Tw1	Tw1/T0	Tw2	Tw2/T0	Tw3	Tw3/T0
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
			2.183	2.009	0.915	1.207	1248.	0.932	517.	0.386	518.	0.387	557.	0.416
			2.165	2.011	0.916	1.189	1247.	0.932	520.	0.388	520.	0.388	560.	0.418
			2.130	2.011	0.917	1.154	1247.	0.931	523.	0.391	521.	0.389	563.	0.420
			2.096	2.009	0.917	1.120	1247.	0.931	527.	0.393	523.	0.391	565.	0.422
			2.062	2.009	0.917	1.086	1246.	0.931	530.	0.396	524.	0.392	568.	0.424
			2.027	2.007	0.917	1.051	1246.	0.931	534.	0.399	526.	0.393	570.	0.426
			1.993	2.005	0.917	1.017	1246.	0.930	537.	0.401	527.	0.394	571.	0.426
			1.957	2.004	0.917	0.981	1258.	0.939	541.	0.404	529.	0.395	572.	0.427
0.941	4.852	2.241	1.921	2.002	0.917	0.945	1255.	0.937	545.	0.407	530.	0.396	574.	0.429
0.926	7.307	3.366	1.906	1.990	0.917	0.930	1259.	0.941	575.	0.429	542.	0.405	591.	0.441
0.891	7.327	3.376	1.871	1.990	0.917	0.895	1259.	0.941	578.	0.432	543.	0.406	592.	0.443
0.859	7.355	3.392	1.839	1.989	0.917	0.863	1259.	0.941	581.	0.435	544.	0.407	593.	0.443
0.824	7.383	3.406	1.804	1.987	0.917	0.828	1260.	0.941	585.	0.437	546.	0.408	594.	0.444
0.791	7.417	3.423	1.771	1.987	0.917	0.795	1259.	0.941	588.	0.439	547.	0.409	594.	0.444
0.757	7.455	3.445	1.737	1.981	0.916	0.761	1259.	0.941	591.	0.442	548.	0.410	595.	0.445
0.721	7.527	3.474	1.701	1.985	0.916	0.725	1259.	0.941	594.	0.444	549.	0.411	597.	0.446
0.686	7.630	3.518	1.666	1.989	0.917	0.690	1260.	0.941	598.	0.447	550.	0.411	597.	0.446
0.651	7.735	3.558	1.631	1.994	0.917	0.655	1260.	0.941	601.	0.449	552.	0.412	599.	0.447
0.616	7.802	3.581	1.596	1.999	0.917	0.620	1260.	0.941	604.	0.451	553.	0.413	600.	0.448
0.581	7.839	3.591	1.561	2.001	0.916	0.585	1259.	0.941	607.	0.454	554.	0.414	601.	0.449
0.546	7.902	3.612	1.526	2.005	0.916	0.550	1260.	0.942	610.	0.456	555.	0.415	601.	0.449
0.512	7.908	3.609	1.492	2.006	0.916	0.516	1260.	0.942	613.	0.458	556.	0.415	602.	0.450
0.476	7.845	3.576	1.456	2.009	0.916	0.480	1260.	0.942	616.	0.460	557.	0.417	603.	0.451
0.442	7.783	3.542	1.422	2.010	0.915	0.446	1260.	0.942	619.	0.462	559.	0.418	604.	0.451
0.407	7.658	3.501	1.387	2.010	0.914	0.411	1261.	0.943	622.	0.465	560.	0.419	605.	0.452
0.372	7.540	3.449	1.352	2.011	0.914	0.376	1262.	0.943	624.	0.467	560.	0.419	607.	0.453
0.337	7.478	3.398	1.317	2.011	0.914	0.341	1262.	0.943	627.	0.469	562.	0.420	608.	0.455
0.302	7.337	3.333	1.282	2.010	0.913	0.306	1262.	0.944	630.	0.471	565.	0.422	610.	0.456
0.267	7.189	3.256	1.247	2.011	0.914	0.271	1264.	0.945	633.	0.473	567.	0.424	612.	0.458
0.232	6.973	3.168	1.212	2.010	0.913	0.236	1265.	0.946	635.	0.475	568.	0.425	613.	0.459
			1.177	2.009	0.913	0.201	1266.	0.947	638.	0.477	569.	0.426	615.	0.460
			1.166	2.006	0.911	0.190	1267.	0.948	641.	0.479	570.	0.426	616.	0.461
			1.157	2.006	0.912	0.181	1267.	0.948	643.	0.481	570.	0.427	618.	0.462
			1.149	2.005	0.912	0.173	1268.	0.948	646.	0.483	571.	0.427	619.	0.463
0.167	6.334	2.883	1.147	2.004	0.912	0.171	1268.	0.949	648.	0.485	572.	0.428	621.	0.464
0.163	6.280	2.861	1.143	2.001	0.911	0.167	1269.	0.949	651.	0.487	573.	0.429	622.	0.465
0.160	6.236	2.842	1.140	2.002	0.912	0.164	1269.	0.949	653.	0.488	574.	0.429	624.	0.466
0.158	6.197	2.825	1.138	2.002	0.913	0.162	1269.	0.949	655.	0.490	575.	0.430	625.	0.467
0.155	6.161	2.810	1.135	1.999	0.912	0.159	1269.	0.949	658.	0.492	576.	0.431	626.	0.468
0.153	6.127	2.796	1.133	1.997	0.911	0.157	1270.	0.950	660.	0.494	577.	0.432	627.	0.469
0.150	6.092	2.784	1.130	1.998	0.913	0.154	1270.	0.950	662.	0.495	578.	0.432	628.	0.470
0.146	6.053	2.766	1.126	1.996	0.912	0.150	1270.	0.950	665.	0.497	579.	0.433	629.	0.471

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GROUP	MODEL	MACH NO	PG(PSIA)	TC(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
25.	139	7.95	250.6	1336.	30.04	-0.04	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.9	0.0267	2.188	1.183	3858.	0.736E-03	0.254E-05	0.112E 07	11.29	0.0	0.50	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/PC1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.143	6.014	2.748	1.123	1.994	0.911	0.147	1270.	0.951	667.	0.499	580.	0.434	631.	0.472
0.140	5.976	2.734	1.120	1.993	0.912	0.144	1271.	0.951	666.	0.501	581.	0.435	632.	0.473
0.138	5.937	2.718	1.118	1.991	0.911	0.142	1271.	0.951	671.	0.502	582.	0.436	633.	0.473
0.135	5.905	2.704	1.115	1.991	0.911	0.139	1271.	0.952	673.	0.504	583.	0.436	634.	0.474
0.132	5.868	2.690	1.112	1.989	0.910	0.136	1271.	0.951	675.	0.505	584.	0.437	634.	0.475
0.129	5.838	2.677	1.109	1.988	0.911	0.133	1271.	0.951	677.	0.507	585.	0.438	635.	0.476
0.127	5.808	2.664	1.107	1.988	0.912	0.131	1272.	0.952	679.	0.509	586.	0.439	636.	0.476
0.123	5.771	2.649	1.103	1.987	0.912	0.127	1272.	0.952	681.	0.510	587.	0.439	637.	0.477
0.121	5.733	2.631	1.101	1.989	0.913	0.125	1272.	0.952	683.	0.512	588.	0.440	638.	0.478
0.119	5.690	2.612	1.099	1.989	0.913	0.123	1272.	0.952	685.	0.513	589.	0.441	639.	0.478
0.116	5.657	2.596	1.096	1.988	0.912	0.120	1272.	0.952	687.	0.514	590.	0.441	640.	0.479
0.113	5.624	2.581	1.093	1.988	0.912	0.117	1272.	0.952	689.	0.516	591.	0.442	641.	0.479
0.111	5.585	2.562	1.091	1.988	0.912	0.115	1272.	0.952	691.	0.517	592.	0.443	641.	0.480
0.107	5.542	2.544	1.087	1.988	0.912	0.111	1273.	0.953	693.	0.519	593.	0.444	642.	0.481
0.104	5.495	2.521	1.084	1.990	0.913	0.108	1273.	0.953	695.	0.520	593.	0.444	643.	0.481
0.101	5.448	2.500	1.081	1.989	0.913	0.105	1273.	0.953	697.	0.521	594.	0.445	644.	0.482
0.099	5.397	2.476	1.077	1.988	0.912	0.103	1273.	0.953	699.	0.523	595.	0.446	645.	0.483
0.096	5.352	2.455	1.076	1.990	0.913	0.100	1273.	0.953	700.	0.524	596.	0.446	646.	0.483
0.093	5.297	2.429	1.073	1.990	0.913	0.097	1272.	0.952	702.	0.525	597.	0.447	646.	0.484
0.090	5.242	2.404	1.070	1.991	0.913	0.094	1272.	0.952	704.	0.527	598.	0.448	647.	0.484
0.087	5.189	2.381	1.067	1.991	0.913	0.091	1272.	0.952	706.	0.528	599.	0.448	648.	0.485
0.084	5.137	2.356	1.064	1.994	0.914	0.088	1272.	0.952	707.	0.529	600.	0.449	649.	0.486
0.081	5.079	2.329	1.061	1.997	0.916	0.085	1272.	0.952	709.	0.531	601.	0.449	649.	0.486
0.078	5.015	2.300	1.058	1.998	0.916	0.082	1271.	0.952	711.	0.532	602.	0.450	650.	0.487
0.076	4.957	2.272	1.056	2.003	0.918	0.080	1271.	0.951	712.	0.533	602.	0.451	651.	0.487
0.074	4.897	2.246	1.054	2.009	0.921	0.078	1271.	0.951	714.	0.534	603.	0.451	652.	0.488
0.071	4.834	2.216	1.051	2.015	0.924	0.075	1271.	0.952	715.	0.536	604.	0.452	653.	0.489
0.068	4.776	2.189	1.048	2.022	0.927	0.072	1270.	0.951	717.	0.537	605.	0.453	653.	0.489
0.066	4.714	2.161	1.046	2.031	0.931	0.070	1270.	0.951	719.	0.538	606.	0.454	654.	0.490
0.063	4.645	2.129	1.043	2.041	0.936	0.067	1270.	0.951	720.	0.539	607.	0.454	655.	0.491
0.061	4.585	2.102	1.041	2.048	0.939	0.065	1269.	0.951	722.	0.541	608.	0.455	656.	0.491
0.059	4.519	2.072	1.039	2.057	0.943	0.063	1269.	0.950	723.	0.542	609.	0.456	656.	0.492
0.057	4.454	2.042	1.037	2.064	0.946	0.061	1268.	0.950	725.	0.543	610.	0.457	657.	0.492
0.055	4.385	2.010	1.035	2.075	0.951	0.059	1267.	0.949	726.	0.544	610.	0.457	658.	0.493
0.051	4.305	1.973	1.031	2.085	0.956	0.055	1266.	0.948	728.	0.545	611.	0.458	659.	0.494
0.049	4.221	1.936	1.029	2.097	0.962	0.053	1264.	0.946	729.	0.546	612.	0.458	660.	0.494
0.046	4.120	1.890	1.026	2.110	0.968	0.050	1260.	0.944	731.	0.547	613.	0.459	660.	0.495
0.044	3.999	1.834	1.024	2.122	0.973	0.048	1255.	0.940	732.	0.548	614.	0.460	661.	0.495
0.041	3.875	1.777	1.021	2.141	0.982	0.045	1249.	0.935	733.	0.549	615.	0.461	662.	0.496
0.039	3.745	1.717	1.019	2.166	0.993	0.043	1241.	0.929	735.	0.550	616.	0.461	663.	0.496
0.036	3.596	1.649	1.016	2.197	1.008	0.040	1231.	0.922	736.	0.551	617.	0.462	663.	0.497
0.034	3.438	1.577	1.014	2.240	1.027	0.038	1217.	0.912	738.	0.553	618.	0.463	664.	0.497

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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
25.	139	7.95	249.6	1334.	30.04	-0.04	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	HHQ-INF	MC-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.8	0.0266	2.180	1.178	3855.	0.735E-03	0.253E-05	0.112E 07	11.29	0.0	0.50	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.031	3.252	1.492	1.011	2.345	1.076	0.035	1196.	0.856	739.	0.554	619.	0.464	665.	0.498
0.028	3.051	1.400	1.008	2.445	1.122	0.032	1175.	0.880	740.	0.555	620.	0.465	666.	0.499
0.025	2.842	1.304	1.005	2.612	1.199	0.029	1148.	0.861	742.	0.556	621.	0.466	666.	0.499
0.022	2.614	1.199	1.002	2.817	1.292	0.026	1117.	0.837	743.	0.557	623.	0.467	667.	0.500
0.019	2.391	1.097	0.999	3.040	1.395	0.023	1087.	0.815	744.	0.558	624.	0.467	668.	0.501
0.016	2.180	1.001	0.996	3.244	1.489	0.020	1059.	0.794	746.	0.559	624.	0.468	668.	0.501
0.014	1.998	0.912	0.994	3.487	1.600	0.018	1022.	0.766	747.	0.560	626.	0.469	669.	0.501
0.011	1.814	0.832	0.991	3.705	1.700	0.015	986.	0.739	748.	0.561	627.	0.470	670.	0.502
0.008	1.659	0.762	0.988	3.928	1.804	0.012	943.	0.707	749.	0.562	628.	0.471	670.	0.502
0.007	1.525	0.700	0.987	4.073	1.870	0.011	890.	0.667	751.	0.563	629.	0.471	671.	0.503
0.007	1.299	0.596	0.987	4.160	1.910	0.011	897.	0.672	753.	0.565	631.	0.473	673.	0.504

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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW						
26.	139	7.95	251.1	1328.	30.03	-0.03	30.00	180.00	0						
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)				
97.4	0.0268	2.193	1.185	3847.	0.742E-03	0.252E-05	0.113E 07	6.77	0.0	0.30	22.58				
ZP1 (IN)	PP1 (PSIA)	PP1/FO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	YT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO	
0.965	1.401	0.639	1.949	1.988	0.907	0.973	1235.	0.930	540.	0.407	534.	0.402	569.	0.429	
0.947	1.404	0.640	1.927	1.990	0.908	0.951	1235.	0.930	544.	0.409	537.	0.404	575.	0.433	
0.914	1.408	0.642	1.894	1.992	0.908	0.918	1235.	0.930	547.	0.412	539.	0.406	580.	0.436	
0.881	1.414	0.645	1.861	1.993	0.909	0.885	1235.	0.930	550.	0.414	542.	0.408	584.	0.440	
0.848	1.418	0.646	1.828	1.992	0.908	0.852	1235.	0.930	554.	0.417	545.	0.411	588.	0.443	
0.813	1.421	0.648	1.793	1.991	0.907	0.817	1235.	0.930	557.	0.420	549.	0.413	591.	0.445	
0.779	1.450	0.661	1.759	1.991	0.907	0.783	1232.	0.928	561.	0.422	552.	0.416	595.	0.448	
0.745	3.470	1.581	1.725	1.987	0.905	0.749	1248.	0.941	564.	0.425	556.	0.419	599.	0.451	
0.724	7.334	3.358	1.704	1.979	0.906	0.728	1248.	0.940	594.	0.448	580.	0.437	624.	0.471	
0.689	7.317	3.351	1.669	1.979	0.907	0.693	1248.	0.940	597.	0.450	582.	0.439	627.	0.472	
0.655	7.260	3.327	1.635	1.979	0.907	0.659	1247.	0.940	601.	0.453	584.	0.440	629.	0.474	
0.620	7.140	3.274	1.600	1.979	0.907	0.624	1247.	0.940	604.	0.455	585.	0.441	631.	0.475	
0.586	6.983	3.205	1.566	1.976	0.907	0.590	1248.	0.940	607.	0.457	587.	0.442	632.	0.476	
0.552	6.901	3.167	1.532	1.977	0.907	0.556	1248.	0.941	610.	0.460	588.	0.443	634.	0.478	
0.517	6.877	3.158	1.497	1.975	0.907	0.521	1249.	0.942	613.	0.462	589.	0.444	637.	0.480	
0.483	6.810	3.127	1.463	1.975	0.907	0.487	1249.	0.942	616.	0.465	591.	0.446	640.	0.482	
0.448	6.741	3.096	1.428	1.978	0.908	0.452	1250.	0.943	619.	0.467	593.	0.447	642.	0.484	
0.413	6.654	3.055	1.393	1.977	0.908	0.417	1250.	0.943	622.	0.469	594.	0.448	644.	0.485	
0.379	6.540	3.002	1.359	1.978	0.908	0.383	1251.	0.943	625.	0.471	594.	0.448	646.	0.487	
0.344	6.429	2.951	1.324	1.979	0.908	0.348	1251.	0.944	628.	0.474	595.	0.449	649.	0.489	
0.310	6.327	2.902	1.290	1.982	0.909	0.314	1252.	0.944	631.	0.476	596.	0.450	651.	0.491	
0.275	6.230	2.857	1.255	1.984	0.910	0.279	1252.	0.945	634.	0.478	598.	0.451	653.	0.492	
0.240	6.118	2.806	1.220	1.983	0.909	0.244	1253.	0.945	637.	0.480	598.	0.451	654.	0.494	
0.210	5.976	2.741	1.196	1.987	0.911	0.220	1255.	0.946	639.	0.482	598.	0.451	656.	0.495	
0.207	5.866	2.689	1.187	1.985	0.910	0.211	1255.	0.946	642.	0.484	598.	0.451	658.	0.496	
0.198	5.786	2.651	1.178	1.987	0.910	0.202	1255.	0.946	645.	0.486	598.	0.451	660.	0.497	
0.189	5.713	2.618	1.169	1.985	0.910	0.193	1256.	0.947	647.	0.488	599.	0.452	662.	0.499	
0.187	5.660	2.594	1.167	1.986	0.910	0.191	1256.	0.947	650.	0.490	599.	0.452	664.	0.500	
0.184	5.619	2.575	1.164	1.988	0.911	0.188	1256.	0.947	652.	0.492	600.	0.452	666.	0.502	
0.182	5.587	2.560	1.162	1.988	0.911	0.186	1256.	0.947	655.	0.494	601.	0.453	668.	0.504	
0.178	5.559	2.546	1.158	1.987	0.910	0.182	1257.	0.948	657.	0.496	601.	0.453	670.	0.505	
0.175	5.529	2.532	1.155	1.991	0.912	0.179	1257.	0.948	660.	0.497	602.	0.454	672.	0.507	
0.172	5.488	2.515	1.152	1.988	0.911	0.176	1257.	0.948	662.	0.499	603.	0.454	674.	0.508	
0.170	5.451	2.497	1.150	1.988	0.911	0.174	1257.	0.948	664.	0.501	603.	0.455	676.	0.510	
0.166	5.413	2.480	1.146	1.987	0.910	0.170	1258.	0.948	667.	0.503	604.	0.456	679.	0.512	
0.163	5.375	2.463	1.143	1.988	0.911	0.167	1258.	0.948	669.	0.504	605.	0.456	681.	0.513	
0.160	5.341	2.446	1.140	1.990	0.911	0.164	1258.	0.949	671.	0.506	605.	0.457	683.	0.515	
0.157	5.301	2.428	1.137	1.988	0.911	0.161	1258.	0.949	673.	0.508	606.	0.457	685.	0.517	
0.155	5.265	2.413	1.135	1.987	0.911	0.159	1258.	0.949	676.	0.509	607.	0.458	687.	0.518	
0.153	5.229	2.395	1.133	1.988	0.911	0.157	1259.	0.949	678.	0.511	608.	0.458	689.	0.520	
0.149	5.194	2.380	1.129	1.988	0.911	0.153	1259.	0.949	680.	0.513	609.	0.459	691.	0.521	
0.147	5.153	2.362	1.127	1.988	0.911	0.151	1259.	0.949	682.	0.514	610.	0.460	693.	0.523	

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
26.	139	7.95	249.8	1325.	30.04	-0.04	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.2	0.0267	2.181	1.179	3844.	0.740E-03	0.252E-05	0.113E 07	6.77	0.0	0.30	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.145	5.115	2.345	1.125	1.988	0.911	0.149	1259.	0.949	684.	0.516	611.	0.460	695.	0.524
0.142	5.078	2.329	1.122	1.988	0.912	0.146	1260.	0.950	686.	0.517	611.	0.461	697.	0.526
0.139	5.038	2.312	1.119	1.988	0.912	0.143	1260.	0.950	688.	0.519	612.	0.462	699.	0.527
0.137	4.999	2.293	1.117	1.987	0.911	0.141	1260.	0.950	690.	0.520	613.	0.463	701.	0.528
0.134	4.963	2.277	1.114	1.987	0.911	0.138	1260.	0.950	692.	0.522	614.	0.463	702.	0.530
0.131	4.921	2.259	1.111	1.986	0.912	0.135	1260.	0.951	694.	0.523	615.	0.464	704.	0.531
0.129	4.883	2.241	1.109	1.985	0.911	0.133	1260.	0.951	696.	0.525	616.	0.465	706.	0.533
0.127	4.843	2.224	1.107	1.985	0.911	0.131	1260.	0.950	698.	0.526	617.	0.465	708.	0.534
0.123	4.801	2.204	1.103	1.983	0.911	0.127	1260.	0.951	700.	0.528	618.	0.466	710.	0.535
0.120	4.755	2.183	1.100	1.984	0.911	0.124	1261.	0.951	701.	0.529	619.	0.467	711.	0.537
0.118	4.714	2.165	1.098	1.984	0.911	0.122	1261.	0.951	703.	0.530	620.	0.467	713.	0.538
0.115	4.668	2.146	1.095	1.982	0.911	0.119	1261.	0.951	705.	0.532	621.	0.468	715.	0.539
0.113	4.627	2.128	1.093	1.982	0.912	0.117	1261.	0.951	707.	0.533	622.	0.469	717.	0.540
0.109	4.588	2.109	1.089	1.982	0.911	0.113	1262.	0.952	708.	0.534	623.	0.470	718.	0.542
0.106	4.546	2.091	1.086	1.984	0.912	0.110	1262.	0.952	710.	0.536	624.	0.470	720.	0.543
0.102	4.499	2.069	1.082	1.983	0.912	0.106	1262.	0.952	712.	0.537	625.	0.471	722.	0.544
0.099	4.456	2.049	1.079	1.982	0.912	0.103	1262.	0.952	713.	0.538	626.	0.472	723.	0.546
0.095	4.413	2.030	1.075	1.984	0.912	0.099	1263.	0.953	715.	0.539	627.	0.473	725.	0.547
0.092	4.372	2.010	1.072	1.985	0.913	0.096	1263.	0.953	717.	0.541	628.	0.473	727.	0.548
0.090	4.331	1.990	1.070	1.984	0.912	0.094	1263.	0.952	718.	0.542	629.	0.474	728.	0.549
0.087	4.294	1.972	1.067	1.986	0.912	0.091	1264.	0.953	720.	0.543	630.	0.475	730.	0.550
0.084	4.263	1.957	1.064	1.989	0.913	0.088	1264.	0.953	722.	0.544	631.	0.476	731.	0.552
0.082	4.225	1.940	1.062	1.987	0.912	0.086	1264.	0.953	723.	0.545	632.	0.477	733.	0.553
0.079	4.189	1.923	1.059	1.988	0.912	0.083	1264.	0.953	725.	0.546	633.	0.478	734.	0.554
0.075	4.145	1.902	1.055	1.988	0.912	0.079	1265.	0.954	726.	0.548	634.	0.478	736.	0.555
0.072	4.100	1.882	1.052	1.990	0.913	0.076	1266.	0.955	728.	0.549	636.	0.479	737.	0.556
0.068	4.051	1.859	1.048	1.987	0.912	0.072	1266.	0.955	729.	0.550	637.	0.480	738.	0.557
0.063	3.994	1.833	1.043	1.990	0.913	0.067	1267.	0.956	731.	0.551	638.	0.481	740.	0.558
0.060	3.935	1.805	1.040	1.992	0.913	0.064	1268.	0.956	732.	0.552	639.	0.482	741.	0.559
0.057	3.870	1.775	1.037	1.990	0.913	0.061	1268.	0.956	734.	0.553	640.	0.483	742.	0.560
0.054	3.808	1.746	1.034	1.991	0.913	0.056	1269.	0.957	735.	0.554	641.	0.483	744.	0.561
0.051	3.737	1.714	1.031	1.991	0.913	0.055	1269.	0.957	736.	0.555	642.	0.484	745.	0.562
0.047	3.657	1.677	1.027	1.991	0.913	0.051	1268.	0.956	738.	0.556	643.	0.485	746.	0.563
0.045	3.568	1.636	1.025	1.993	0.913	0.049	1267.	0.956	739.	0.557	645.	0.486	748.	0.564
0.041	3.477	1.594	1.021	1.991	0.913	0.045	1265.	0.954	740.	0.558	646.	0.487	749.	0.565
0.031	3.045	1.397	1.011	1.990	0.913	0.035	1230.	0.929	744.	0.562	650.	0.490	752.	0.568
0.027	2.855	1.310	1.007	1.993	0.914	0.031	1207.	0.911	746.	0.563	651.	0.491	754.	0.569
0.023	2.641	1.212	1.003	1.991	0.913	0.027	1181.	0.891	747.	0.564	652.	0.492	755.	0.570
0.019	2.410	1.106	0.999	1.990	0.913	0.023	1143.	0.863	748.	0.565	653.	0.493	756.	0.571
0.016	2.181	1.001	0.996	1.990	0.913	0.020	1107.	0.836	750.	0.566	654.	0.494	757.	0.572
0.011	1.784	0.819	0.991	1.991	0.914	0.015	1031.	0.778	752.	0.568	657.	0.496	760.	0.573
0.007	1.631	0.748	0.987	1.991	0.914	0.011	974.	0.735	753.	0.569	658.	0.496	761.	0.574

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GROUP 26.	MODEL 139	MACH NO 7.95	PO(PSIA) 249.5	TC(DEG R) 1325.	ALPHA-MODEL 30.04	ALPHA-SECTOR -0.04	ALPHA-PREBEND 30.00	ROLL-MODEL 180.00	YAW 0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	U-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MC-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
97.1	0.0266	2.179	1.178	3642.	0.739E-03	0.251E-05	0.113E 07	6.77	0.0	0.30	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
-0.007	-1.319	-0.633	-0.987	-1.589	-0.913	0.011	562.	0.726	756.	0.570	660.	0.498	763.	0.576

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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG H)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW		
30	139	7.95	244.4	1339	25.98	.02	30.00	180.00	0		
T-INF (DEG R)	P-INF (PSIA)	POI (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FI-1)	L (IN)			
98.2	.0265	2.177	1.177	3862	7.310E-04	2.541E-06	1111048.69	22.58			
CM	POS	TAP	PM (PSIA)	PN/PO	PN/POI	PM/P-INF	CP	CP/CP-MAX	X/L	X (IN)	Y (IN)
1	2	1	6.089E-01	3.244E-03	3.716E-01	3.041E-01	6.647E-01	3.638E-01	.100	2.28	0
2	2	2	6.262E-01	2.511E-03	2.876E-01	2.354E-01	5.095E-01	2.788E-01	.200	4.52	0
3	2	3	6.369E-01	2.554E-03	2.925E-01	2.439E-01	5.186E-01	2.818E-01	.300	6.77	0
4	2	4	6.430E-01	2.579E-03	2.954E-01	2.417E-01	5.238E-01	2.866E-01	.400	9.03	0
5	2	5	6.689E-01	2.623E-03	3.073E-01	2.515E-01	5.458E-01	2.987E-01	.500	11.29	0
6	2	6	6.741E-01	2.703E-03	3.040E-01	2.534E-01	5.502E-01	3.011E-01	.600	13.55	0
7	2	7	6.669E-01	2.674E-03	3.063E-01	2.507E-01	5.440E-01	2.977E-01	.700	15.81	0
8	2	8	6.970E-01	2.754E-03	3.204E-01	2.622E-01	5.701E-01	3.120E-01	.800	18.06	0
9	2	9	5.818E-01	2.308E-03	2.644E-01	2.104E-01	4.665E-01	2.553E-01	.900	20.32	0
10	3	10	4.442E-01	1.778E-03	2.037E-01	1.667E-01	3.541E-01	1.938E-01	1.000	22.58	0
11	3	11	6.563E-01	2.604E-03	2.982E-01	2.441E-01	5.291E-01	2.835E-01	.400	9.03	.88
12	3	12	6.421E-01	2.706E-03	3.100E-01	2.537E-01	5.508E-01	3.014E-01	.500	11.29	.88
13	3	13	6.823E-01	2.707E-03	3.101E-01	2.534E-01	5.510E-01	3.015E-01	.600	13.55	.88
14	3	14	6.671E-01	2.647E-03	3.031E-01	2.481E-01	5.381E-01	2.945E-01	.500	11.29	2.05
15	3	15	6.777E-01	2.689E-03	3.040E-01	2.570E-01	5.471E-01	2.994E-01	.600	13.55	2.05
16	3	16	7.956E-01	3.157E-03	3.615E-01	2.954E-01	6.462E-01	3.536E-01	.800	18.06	2.05
17	4	17	9.244E-01	3.667E-03	4.201E-01	3.438E-01	7.544E-01	4.129E-01	.800	18.06	3.28
18	4	18	8.207E-01	3.256E-03	3.730E-01	3.052E-01	6.673E-01	3.652E-01	.848	19.15	4.92
19	4	19	9.396E-01	3.728E-03	4.270E-01	3.445E-01	7.673E-01	4.199E-01	.842	19.02	6.15
20	4	20	5.156E-01	2.046E-03	2.343E-01	1.918E-01	4.108E-01	2.249E-01	.888	20.61	6.15
21	4	21	1.031E-00	4.089E-03	4.683E-01	3.833E-01	8.437E-01	4.618E-01	.857	19.35	6.15



ORIGINAL PAGE IS  
OF POOR QUALITY

DATE = 9-20-73  
PROJECT NUMBER VA353-216A  
AROT INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA7RI OHY SPUTTLE TEST  
PAGE = 1

GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEC K)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW		
31	139	7.92	148.8	1340	30.01	-0.01	30.60	180.00	0		
T-INF (DEC K)	P-INF (PSIA)	POI (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (F1-1)	L (IN)			
92.9	.0163	1.321	.714	3863	4.434E-04	2.561E-06	668860.64	22.58			
CH	POS	TAP	PM (PSIA)	PM/PO	PM/PO1	PM/P-INF	CP	CP/CP-MAX	X7L	X (IN)	Y (IN)
1	2	1	4.932E-01	3.316E-03	3.734E-01	3.033E 01	6.679E-01	3.655E-01	.100	2.26	0
2	2	2	3.782E-01	2.543E-03	2.863E-01	2.320E 01	5.067E-01	2.774E-01	.200	4.52	0
3	2	3	3.821E-01	2.569E-03	2.893E-01	2.347E 01	5.123E-01	2.804E-01	.300	6.77	0
4	2	4	3.903E-01	2.624E-03	2.955E-01	2.400E 01	5.238E-01	2.867E-01	.400	9.03	0
5	2	5	3.947E-01	2.641E-03	2.972E-01	2.412E 01	5.284E-01	2.902E-01	.500	11.24	0
6	2	6	4.096E-01	2.754E-03	3.101E-01	2.519E 01	5.504E-01	3.015E-01	.600	13.55	0
7	2	7	3.952E-01	2.657E-03	2.992E-01	2.430E 01	5.306E-01	2.904E-01	.700	15.81	0
8	2	8	4.208E-01	2.829E-03	3.185E-01	2.587E 01	5.665E-01	3.100E-01	.800	18.06	0
1	3	9	3.565E-01	2.394E-03	2.895E-01	2.184E 01	4.754E-01	2.604E-01	.900	20.32	0
2	3	10	2.739E-01	1.839E-03	2.071E-01	1.682E 01	3.603E-01	1.972E-01	1.000	22.58	0
3	3	11	3.923E-01	2.634E-03	2.966E-01	2.404E 01	5.258E-01	2.878E-01	.400	9.03	.88
4	3	12	4.093E-01	2.748E-03	3.095E-01	2.514E 01	5.497E-01	3.009E-01	.500	11.24	.88
5	3	13	4.093E-01	2.748E-03	3.095E-01	2.514E 01	5.497E-01	3.009E-01	.600	13.55	.88
6	3	14	4.000E-01	2.645E-03	3.024E-01	2.456E 01	5.366E-01	2.937E-01	.500	11.24	2.05
7	3	15	4.030E-01	2.706E-03	3.047E-01	2.475E 01	5.408E-01	2.960E-01	.600	13.55	2.05
8	3	16	4.733E-01	3.177E-03	3.578E-01	2.906E 01	6.391E-01	3.498E-01	.800	18.06	2.05
1	4	17	5.516E-01	3.696E-03	4.162E-01	3.381E 01	7.471E-01	4.089E-01	.800	18.06	3.28
2	4	18	4.918E-01	3.295E-03	3.710E-01	3.014E 01	6.636E-01	3.632E-01	.848	19.15	4.92
3	4	19	5.324E-01	3.567E-03	4.017E-01	3.263E 01	7.203E-01	3.942E-01	.842	19.02	6.15
4	4	20	3.133E-01	2.099E-03	2.364E-01	1.920E 01	4.145E-01	2.268E-01	.888	20.61	6.15
5	4	21	6.151E-01	4.121E-03	4.641E-01	3.769E 01	8.357E-01	4.574E-01	.857	19.35	6.15

DATE = 9-20-73  
 PROJECT NUMBER VA353-218A  
 ARD, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/R1 OHV SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW		
37	139	7.92	149.3	1343	35.01	5.01	30.00	180.00	0		
T-INF (DEG R)	P-INF (PSIA)	PO (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (F-1)	L (IN)			
99.1	.0163	1.325	.716	3867	4.439E-04	2.567E-06	668865.22	22.58			
CH	POS	TAP	PM (PSIA)	PM/PO	PM/PO1	PM/P-INF	CP	CP/CP-MAX	X/L	X (IN)	Y (IN)
1	2	1	6.162E-01	4.129E-03	4.649E-01	3.777E 01	8.373E-01	4.583E-01	.100	2.26	0
2	2	2	4.970E-01	3.330E-03	3.750E-01	3.046E 01	6.709E-01	3.672E-01	.200	4.52	0
3	2	3	5.026E-01	3.367E-03	3.742E-01	3.080E 01	6.787E-01	3.715E-01	.300	6.77	0
4	2	4	5.118E-01	3.429E-03	3.862E-01	3.137E 01	6.916E-01	3.785E-01	.400	9.03	0
5	2	5	4.322E-01	2.936E-03	3.260E-01	2.635E 01	5.380E-01	3.222E-01	.500	11.29	0
6	2	6	5.267E-01	3.529E-03	3.974E-01	3.228E 01	7.174E-01	3.899E-01	.600	13.55	0
7	2	7	5.145E-01	3.447E-03	3.881E-01	3.153E 01	6.953E-01	3.805E-01	.700	15.81	0
8	2	8	5.399E-01	3.618E-03	4.074E-01	3.309E 01	7.308E-01	4.000E-01	.800	18.06	0
1	3	9	4.598E-01	3.106E-03	3.497E-01	2.841E 01	6.241E-01	3.416E-01	.900	20.32	0
2	3	10	3.678E-01	2.484E-03	2.797E-01	2.272E 01	4.947E-01	2.707E-01	1.000	22.58	0
3	3	11	5.076E-01	3.428E-03	3.861E-01	3.136E 01	6.914E-01	3.784E-01	.400	9.03	.88
4	3	12	5.241E-01	3.540E-03	3.980E-01	3.238E 01	7.146E-01	3.911E-01	.500	11.29	.88
5	3	13	5.202E-01	3.514E-03	3.957E-01	3.214E 01	7.092E-01	3.881E-01	.600	13.55	.88
6	3	14	4.990E-01	3.370E-03	3.795E-01	3.083E 01	6.793E-01	3.718E-01	.500	11.29	2.05
7	3	15	5.106E-01	3.449E-03	3.864E-01	3.155E 01	6.957E-01	3.808E-01	.600	13.55	2.05
8	3	16	5.978E-01	4.038E-03	4.547E-01	3.693E 01	8.183E-01	4.479E-01	.800	18.06	2.05
1	4	17	6.721E-01	4.542E-03	5.115E-01	4.155E 01	9.235E-01	5.054E-01	.800	18.06	3.28
2	4	18	6.071E-01	4.103E-03	4.621E-01	3.753E 01	8.320E-01	4.554E-01	.848	19.15	4.92
3	4	19	6.597E-01	4.459E-03	5.021E-01	4.078E 01	9.060E-01	4.959E-01	.842	19.02	6.15
4	4	20	4.035E-01	2.727E-03	3.071E-01	2.495E 01	5.454E-01	2.985E-01	.888	20.61	6.15
5	4	21	7.372E-01	4.983E-03	5.611E-01	4.557E 01	1.015E 00	5.556E-01	.857	19.35	6.15

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 ARD, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA7R1 OHV SPUTTLE TEST  
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GROUP	MODEL	MACH NO	PU(PSIA)	TU(DEC M)	ALPHA-MODEL	ALPHA-SEC TOR	ALPHA-PREBEND	ROLL-MODEL	YAW		
33	139	7.92	149.1	1338	24.96	5.04	30.00	180.00	0		
T-INF (DEG R)	P-INF (PSIA)	POT (PSIA)	Q-INF (PSIA)	U-INF (F/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FI-1)	L (IN)			
98.8	.0163	1.324	.716	3860	4.450E-04	2.557E-06	671717.54	22.58			
CH	POS	TAP	PM (PSIA)	PM/PO	PM/POI	PM/P-INF	CP	CP/CP-MAX	X/L	X (IN)	Y (IN)
1	2	1	3.747E-01	2.514E-03	2.831E-01	2.300E 01	5.010E-01	2.742E-01	.100	2.26	0
2	2	2	2.605E-01	1.882E-03	2.120E-01	1.722E 01	3.693E-01	2.071E-01	.200	4.52	0
3	2	3	2.732E-01	1.833E-03	2.064E-01	1.676E 01	3.590E-01	1.965E-01	.300	6.77	0
4	2	4	2.832E-01	1.900E-03	2.140E-01	1.738E 01	3.730E-01	2.042E-01	.400	9.03	0
5	2	5	2.940E-01	1.973E-03	2.221E-01	1.804E 01	3.882E-01	2.124E-01	.500	11.29	0
6	2	6	3.016E-01	2.024E-03	2.274E-01	1.851E 01	3.987E-01	2.182E-01	.600	13.55	0
7	2	7	2.873E-01	1.928E-03	2.171E-01	1.763E 01	3.788E-01	2.073E-01	.700	15.81	0
8	2	8	3.134E-01	2.102E-03	2.308E-01	1.923E 01	4.152E-01	2.272E-01	.800	18.06	0
9	2	9	2.649E-01	1.786E-03	2.011E-01	1.633E 01	3.442E-01	1.911E-01	.900	20.32	0
10	3	10	1.984E-01	1.337E-03	1.500E-01	1.223E 01	2.557E-01	1.400E-01	1.000	22.58	0
11	3	11	2.832E-01	1.909E-03	2.144E-01	1.748E 01	3.748E-01	2.052E-01	.400	9.03	.88
12	3	12	2.996E-01	2.020E-03	2.274E-01	1.847E 01	3.980E-01	2.178E-01	.500	11.29	.88
13	3	13	3.014E-01	2.032E-03	2.288E-01	1.859E 01	4.005E-01	2.192E-01	.600	13.55	.88
14	3	14	3.020E-01	2.036E-03	2.292E-01	1.862E 01	4.013E-01	2.196E-01	.500	11.29	2.05
15	3	15	2.986E-01	2.013E-03	2.266E-01	1.841E 01	3.965E-01	2.170E-01	.600	13.55	2.05
16	3	16	3.525E-01	2.376E-03	2.670E-01	2.173E 01	4.722E-01	2.584E-01	.800	18.06	2.05
17	4	17	4.236E-01	2.840E-03	3.190E-01	2.598E 01	5.688E-01	3.113E-01	.800	18.06	3.28
18	4	18	3.788E-01	2.540E-03	2.860E-01	2.323E 01	5.063E-01	2.771E-01	.848	19.15	4.92
19	4	19	3.913E-01	2.623E-03	2.954E-01	2.400E 01	5.237E-01	2.866E-01	.842	19.02	6.15
20	4	20	2.329E-01	1.561E-03	1.758E-01	1.428E 01	3.024E-01	1.655E-01	.888	20.61	6.15
21	4	21	4.924E-01	3.301E-03	3.718E-01	3.020E 01	6.649E-01	3.639E-01	.857	19.35	6.15

DATE = 9-20-73  
 PROJECT NUMBER VA353-218A  
 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/AFI OM9 SFO/ILE TEST  
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ORIGINAL PAGE IS  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW		
34	139	7.92	144.8	1332	15.42	14.5H	30.00	180.00	0		
T-INF (DEG R)	P-INF (PSIA)	POI (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	L (IN)			
98.3	.0163	1.321	.714	3851	4.401E-04	2.546E-06	674901.50	22.58			
CM	POS	TAP	PM (PSIA)	PM/PO	PM/PO1	PM/P-INF	CP	CP/CP-MAX	X/L	X (IN)	Y (IN)
1	2	1	1.979E-01	1.330E-03	1.498E-01	1.217E 01	2.543E-01	1.392E-01	.100	2.28	0
2	2	2	1.586E-01	1.066E-03	1.200E-01	9.750E 00	1.993E-01	1.041E-01	.200	4.52	0
3	2	3	1.091E-01	7.335E-04	8.200E-02	6.709E 00	1.300E-01	7.116E-02	.300	6.77	0
4	2	4	1.135E-01	7.631E-04	8.593E-02	6.980E 00	1.302E-01	7.454E-02	.400	9.03	0
5	2	5	2.004E-01	1.337E-03	1.517E-01	1.232E 01	2.576E-01	1.441E-01	.500	11.29	0
6	2	6	1.207E-01	8.113E-04	9.130E-02	7.421E 00	1.462E-01	8.003E-02	.600	13.55	0
7	2	7	1.040E-01	7.102E-04	8.044E-02	6.567E 00	1.277E-01	6.941E-02	.700	15.81	0
8	2	8	1.375E-01	9.245E-04	1.041E-01	8.450E 00	1.698E-01	9.294E-02	.800	18.06	0
1	3	9	1.401E-01	9.434E-04	1.062E-01	8.629E 00	1.738E-01	9.510E-02	.900	20.32	0
2	3	10	1.411E-01	9.503E-04	1.070E-01	8.692E 00	1.752E-01	9.588E-02	1.000	22.58	0
3	3	11	1.203E-01	8.104E-04	9.120E-02	7.412E 00	1.460E-01	7.993E-02	.400	9.03	.88
4	3	12	1.292E-01	8.701E-04	9.797E-02	7.959E 00	1.505E-01	8.673E-02	.500	11.29	.88
5	3	13	1.407E-01	9.883E-04	1.113E-01	9.040E 00	1.831E-01	1.002E-01	.600	13.55	.88
6	3	14	1.371E-01	9.239E-04	1.040E-01	8.450E 00	1.697E-01	9.286E-02	.500	11.29	2.05
7	3	15	1.277E-01	8.603E-04	9.687E-02	7.869E 00	1.564E-01	8.562E-02	.600	13.55	2.05
8	3	16	1.659E-01	1.117E-03	1.258E-01	1.022E 01	2.100E-01	1.149E-01	.800	18.06	2.05
1	4	17	2.189E-01	1.477E-03	1.604E-01	1.351E 01	2.850E-01	1.560E-01	.800	18.06	3.28
2	4	18	2.207E-01	1.489E-03	1.677E-01	1.362E 01	2.875E-01	1.573E-01	.848	19.15	4.92
3	4	19	1.843E-01	1.244E-03	1.400E-01	1.138E 01	2.363E-01	1.293E-01	.842	19.02	6.15
4	4	20	1.243E-01	8.753E-04	9.451E-02	7.677E 00	1.521E-01	8.323E-02	.888	20.61	6.15
5	4	21	2.754E-01	1.859E-03	2.093E-01	1.700E 01	3.645E-01	1.995E-01	.857	19.35	6.15
PO ZERO 1 PO ZERO 2 ATZ ZERO LOW REF HIGH REF											
-0 1.9920E 03 0 4.4980E 04 4.0016E 04											
ALPHA ZERO ROLL ZERO											
1.6188E 04 1.6404E 04											

ORIGINAL PAGE IS  
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DATE = 9-20-73  
PROJECT NUMBER VA353-218A  
ARO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/RI 00-9 SHUTTLE TEST  
PAGE = 1

GROUP	MODEL	PACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
35.	139	7.92	148.1	1328.	30.00	0.0	30.00	180.00	0					
T-INF	P-INF	PO1	O-INF	U-INF	RHO-INF	PL-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.0	0.0102	1.315	0.711	3846.	0.445E-03	0.254E-05	0.675E 06	13.55	0.0	0.60	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO	
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)	(DEG R)		(DEG R)		(DEG R)		
1.305	1.002	0.762	2.355	1.005	0.764	1.306	1259.	0.948	568.	0.428	536.	0.404	559.	0.421
1.277	1.000	0.760	2.327	1.004	0.763	1.278	1259.	0.948	570.	0.429	538.	0.405	563.	0.424
1.247	1.000	0.760	2.297	1.005	0.764	1.248	1259.	0.948	572.	0.431	539.	0.406	566.	0.426
1.217	0.998	0.759	2.267	1.004	0.763	1.218	1260.	0.949	574.	0.432	539.	0.406	569.	0.428
1.188	0.998	0.757	2.238	1.005	0.764	1.189	1260.	0.949	576.	0.434	541.	0.407	571.	0.430
1.159	0.995	0.756	2.209	1.004	0.763	1.160	1260.	0.949	578.	0.435	542.	0.408	573.	0.432
1.129	1.039	0.789	2.179	1.004	0.763	1.130	1257.	0.946	580.	0.437	543.	0.409	575.	0.433
1.107	1.731	1.318	2.157	1.005	0.764	1.108	1259.	0.948	583.	0.439	544.	0.409	577.	0.434
			2.146	1.005	0.764	1.097	1261.	0.949	601.	0.453	552.	0.416	591.	0.445
1.066	4.120	3.129	2.116	1.004	0.762	1.067	1260.	0.949	603.	0.454	553.	0.417	593.	0.446
1.035	4.292	3.262	2.085	1.003	0.762	1.036	1260.	0.949	606.	0.456	554.	0.417	593.	0.447
1.006	4.397	3.342	2.056	1.004	0.763	1.007	1260.	0.949	608.	0.458	555.	0.418	593.	0.447
0.981	4.458	3.386	2.031	1.004	0.762	0.982	1259.	0.948	610.	0.459	556.	0.419	594.	0.447
0.950	4.499	3.420	2.000	1.003	0.762	0.951	1260.	0.949	612.	0.461	557.	0.419	596.	0.448
0.921	4.536	3.446	1.971	1.003	0.762	0.922	1260.	0.949	614.	0.462	557.	0.420	597.	0.449
0.891	4.568	3.470	1.941	1.004	0.763	0.892	1260.	0.948	616.	0.464	558.	0.420	598.	0.450
0.861	4.589	3.486	1.911	1.002	0.761	0.862	1260.	0.949	618.	0.466	559.	0.421	598.	0.451
0.830	4.606	3.499	1.880	1.002	0.761	0.831	1260.	0.949	620.	0.467	560.	0.422	599.	0.451
0.801	4.620	3.510	1.851	1.002	0.761	0.802	1259.	0.948	622.	0.469	561.	0.423	600.	0.452
0.770	4.634	3.519	1.820	1.000	0.759	0.771	1259.	0.948	624.	0.470	562.	0.423	601.	0.453
0.740	4.646	3.529	1.790	1.000	0.759	0.741	1259.	0.948	626.	0.472	563.	0.424	602.	0.453
0.710	4.660	3.540	1.760	1.000	0.760	0.711	1259.	0.948	628.	0.473	564.	0.424	603.	0.454
0.680	4.672	3.549	1.730	1.001	0.760	0.681	1260.	0.949	630.	0.475	564.	0.425	604.	0.455
0.649	4.691	3.563	1.699	0.999	0.759	0.650	1259.	0.948	632.	0.476	565.	0.426	605.	0.456
0.619	4.726	3.590	1.669	1.000	0.760	0.620	1259.	0.948	634.	0.478	566.	0.426	605.	0.456
0.589	4.773	3.625	1.639	1.000	0.760	0.590	1259.	0.948	636.	0.479	567.	0.427	606.	0.456
0.558	4.810	3.658	1.608	0.998	0.758	0.559	1259.	0.948	638.	0.480	568.	0.428	607.	0.457
0.528	4.846	3.681	1.578	0.998	0.758	0.529	1259.	0.948	640.	0.482	568.	0.428	607.	0.457
0.498	4.885	3.693	1.548	0.997	0.756	0.499	1259.	0.948	642.	0.483	569.	0.429	608.	0.458
0.467	4.860	3.689	1.517	0.999	0.756	0.468	1259.	0.948	643.	0.484	570.	0.429	608.	0.458
0.437	4.828	3.667	1.487	0.997	0.757	0.438	1260.	0.949	645.	0.486	571.	0.430	609.	0.458
0.407	4.779	3.630	1.457	0.998	0.758	0.408	1260.	0.949	647.	0.487	571.	0.430	609.	0.459
0.377	4.724	3.586	1.427	0.996	0.750	0.378	1261.	0.950	649.	0.488	572.	0.431	610.	0.459
			1.396	0.997	0.757	0.347	1261.	0.950	650.	0.490	573.	0.432	610.	0.460
			1.373	0.995	0.755	0.324	1262.	0.950	652.	0.491	574.	0.432	611.	0.460
			1.373	0.995	0.755	0.324	1262.	0.950	654.	0.492	575.	0.433	611.	0.460
			1.373	0.996	0.756	0.324	1262.	0.950	655.	0.494	575.	0.433	611.	0.460
0.323	4.503	3.418	1.373	0.997	0.756	0.324	1262.	0.950	657.	0.495	576.	0.434	612.	0.461
0.323	4.458	3.415	1.373	0.996	0.756	0.324	1263.	0.951	659.	0.496	577.	0.434	612.	0.461
0.323	4.497	3.414	1.373	0.996	0.756	0.324	1262.	0.950	660.	0.497	578.	0.435	613.	0.461
0.323	4.499	3.415	1.373	0.997	0.757	0.324	1262.	0.950	662.	0.498	578.	0.436	613.	0.462
0.319	4.495	3.412	1.369	0.997	0.756	0.320	1262.	0.950	664.	0.500	579.	0.436	614.	0.462

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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
35.	139	7.92	148.4	1328.	30.01	-9.01	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.0	0.0162	1.317	0.712	3846.	0.446E-03	0.254E-05	0.676E 06	13.55	0.0	0.60	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	PP2 (IN)	PP2/PO1 (PSIA)	TT2 (IN)	TT2/TO (DEG R)	TW1 (DEG R)	TW1/TO (DEG R)	TW2 (DEG R)	TW2/TO (DEG R)	TW3 (DEG R)	TW3/TO (DEG R)		
0.315	4.487	3.406	1.365	0.996	0.756	0.316	1262.	0.950	665.	0.501	580.	0.437	614.	0.463
0.309	4.472	3.395	1.359	0.996	0.756	0.310	1262.	0.950	667.	0.502	581.	0.437	615.	0.463
0.306	4.456	3.383	1.356	0.997	0.756	0.307	1262.	0.951	668.	0.503	581.	0.438	615.	0.463
0.302	4.445	3.374	1.352	0.996	0.756	0.303	1262.	0.951	670.	0.504	582.	0.438	616.	0.464
0.299	4.434	3.366	1.349	0.996	0.756	0.300	1263.	0.951	671.	0.505	583.	0.439	616.	0.464
0.294	4.419	3.355	1.344	0.996	0.756	0.295	1262.	0.950	673.	0.507	584.	0.439	617.	0.464
0.290	4.405	3.344	1.340	0.996	0.756	0.291	1262.	0.951	674.	0.508	584.	0.440	617.	0.465
0.286	4.395	3.336	1.336	0.998	0.758	0.287	1263.	0.951	676.	0.509	585.	0.440	618.	0.465
0.282	4.380	3.323	1.332	0.998	0.757	0.283	1263.	0.951	677.	0.510	585.	0.441	618.	0.465
0.277	4.364	3.313	1.327	0.995	0.755	0.278	1263.	0.951	679.	0.511	586.	0.442	619.	0.466
0.273	4.355	3.306	1.323	0.997	0.757	0.274	1263.	0.951	680.	0.512	587.	0.442	619.	0.466
0.268	4.338	3.293	1.318	0.997	0.756	0.269	1263.	0.951	681.	0.513	588.	0.443	620.	0.467
0.264	4.323	3.282	1.314	0.996	0.756	0.265	1263.	0.951	683.	0.514	588.	0.443	620.	0.467
0.259	4.311	3.272	1.309	0.998	0.758	0.260	1264.	0.952	684.	0.515	589.	0.444	621.	0.467
0.256	4.295	3.260	1.306	0.998	0.757	0.257	1264.	0.951	686.	0.516	590.	0.444	621.	0.468
0.253	4.278	3.247	1.303	0.998	0.757	0.254	1264.	0.952	687.	0.517	591.	0.445	622.	0.468
0.249	4.267	3.239	1.299	0.998	0.758	0.250	1264.	0.952	688.	0.518	591.	0.445	622.	0.468
0.246	4.253	3.226	1.296	0.997	0.756	0.247	1264.	0.952	690.	0.519	592.	0.446	623.	0.469
0.243	4.240	3.216	1.293	0.995	0.754	0.244	1264.	0.952	691.	0.520	593.	0.446	623.	0.469
0.241	4.232	3.210	1.291	0.999	0.757	0.242	1264.	0.952	692.	0.521	593.	0.447	624.	0.470
0.238	4.222	3.204	1.288	0.998	0.758	0.239	1264.	0.952	694.	0.522	594.	0.447	624.	0.470
0.234	4.207	3.191	1.284	0.996	0.755	0.235	1264.	0.952	695.	0.523	595.	0.448	624.	0.470
0.230	4.194	3.184	1.280	0.996	0.756	0.231	1265.	0.952	696.	0.524	595.	0.448	625.	0.471
0.227	4.182	3.172	1.277	0.997	0.756	0.228	1265.	0.952	697.	0.525	596.	0.449	625.	0.471
0.224	4.170	3.163	1.274	0.998	0.757	0.225	1265.	0.952	699.	0.526	596.	0.449	626.	0.471
0.221	4.157	3.153	1.271	0.997	0.756	0.222	1265.	0.953	700.	0.527	597.	0.450	626.	0.472
0.217	4.143	3.143	1.267	0.997	0.756	0.218	1265.	0.953	701.	0.528	598.	0.450	627.	0.472
0.213	4.130	3.133	1.263	0.997	0.756	0.214	1265.	0.953	702.	0.529	598.	0.451	627.	0.472
0.210	4.116	3.122	1.260	0.996	0.755	0.211	1265.	0.953	704.	0.530	599.	0.451	628.	0.473
0.207	4.102	3.112	1.257	0.997	0.756	0.208	1265.	0.953	705.	0.531	600.	0.452	628.	0.473
0.203	4.088	3.101	1.253	0.997	0.756	0.204	1266.	0.953	706.	0.532	600.	0.452	629.	0.473
0.200	4.074	3.090	1.250	0.997	0.756	0.201	1265.	0.953	707.	0.533	601.	0.453	629.	0.474
0.196	4.060	3.080	1.246	0.996	0.755	0.197	1266.	0.953	708.	0.533	602.	0.453	629.	0.474
0.192	4.046	3.069	1.242	0.997	0.756	0.193	1266.	0.954	710.	0.534	602.	0.453	630.	0.474
0.188	4.030	3.055	1.238	0.997	0.755	0.189	1266.	0.954	711.	0.535	603.	0.454	630.	0.475
0.185	4.013	3.044	1.235	0.996	0.755	0.186	1267.	0.954	712.	0.536	604.	0.455	631.	0.475
0.182	4.000	3.034	1.232	0.998	0.757	0.183	1267.	0.954	713.	0.537	604.	0.455	631.	0.475
0.179	3.982	3.021	1.229	0.997	0.756	0.180	1267.	0.954	714.	0.538	605.	0.455	631.	0.475
0.175	3.966	3.008	1.225	0.997	0.756	0.176	1267.	0.954	715.	0.539	606.	0.456	632.	0.476
0.172	3.951	2.997	1.222	0.997	0.756	0.173	1268.	0.955	716.	0.539	606.	0.456	632.	0.476
0.169	3.934	2.984	1.219	0.997	0.756	0.170	1268.	0.955	717.	0.540	607.	0.457	632.	0.476
0.166	3.917	2.971	1.216	0.997	0.756	0.167	1268.	0.955	718.	0.541	607.	0.457	633.	0.476

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ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO.	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
35.	139	7.92	148.5	1328.	30.01	-0.01	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	RHO-INF	MO-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.0	0.0162	1.318	0.713	3846.	0.447E-03	0.254E-05	0.677E 06	13.55	0.0	0.60	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.163	3.903	2.961	1.213	0.997	0.756	0.164	1268.	0.955	720.	0.542	608.	0.458	633.	0.477
0.161	3.889	2.950	1.211	0.998	0.757	0.162	1268.	0.955	721.	0.543	608.	0.458	633.	0.477
0.157	3.871	2.936	1.207	0.996	0.755	0.158	1269.	0.956	722.	0.543	609.	0.459	634.	0.477
0.154	3.855	2.924	1.204	0.997	0.756	0.155	1269.	0.955	723.	0.544	610.	0.459	634.	0.477
0.151	3.835	2.909	1.201	0.997	0.756	0.152	1269.	0.956	724.	0.545	610.	0.460	634.	0.478
0.147	3.816	2.895	1.197	0.997	0.756	0.148	1270.	0.956	725.	0.546	611.	0.460	635.	0.478
0.142	3.788	2.873	1.192	0.996	0.755	0.143	1270.	0.956	726.	0.547	612.	0.461	635.	0.478
0.138	3.761	2.853	1.188	0.998	0.757	0.139	1271.	0.957	727.	0.547	612.	0.461	635.	0.478
0.134	3.733	2.831	1.184	0.998	0.757	0.135	1271.	0.957	728.	0.548	613.	0.461	636.	0.479
0.132	3.705	2.808	1.182	0.999	0.757	0.133	1271.	0.957	729.	0.549	613.	0.462	636.	0.479
0.127	3.676	2.786	1.177	1.001	0.758	0.128	1272.	0.958	730.	0.550	614.	0.462	636.	0.479
0.125	3.643	2.764	1.175	1.003	0.761	0.126	1272.	0.958	731.	0.550	615.	0.463	637.	0.479
0.122	3.614	2.741	1.172	1.005	0.762	0.123	1272.	0.958	732.	0.551	615.	0.463	637.	0.480
0.118	3.582	2.717	1.168	1.011	0.767	0.119	1273.	0.959	733.	0.552	616.	0.464	637.	0.480
0.115	3.547	2.690	1.165	1.018	0.772	0.116	1273.	0.959	734.	0.553	616.	0.464	638.	0.480
0.110	3.507	2.659	1.160	1.027	0.779	0.111	1274.	0.959	735.	0.553	617.	0.465	638.	0.480
0.107	3.463	2.625	1.157	1.035	0.784	0.108	1274.	0.959	736.	0.554	618.	0.465	638.	0.481
0.103	3.418	2.592	1.153	1.046	0.793	0.104	1274.	0.959	737.	0.555	618.	0.465	639.	0.481
0.100	3.373	2.557	1.150	1.056	0.800	0.101	1275.	0.960	738.	0.556	619.	0.466	639.	0.481
0.096	3.322	2.519	1.146	1.068	0.809	0.097	1274.	0.959	739.	0.556	619.	0.466	639.	0.481
0.091	3.272	2.480	1.141	1.084	0.822	0.092	1274.	0.960	740.	0.557	620.	0.467	640.	0.482
0.087	3.212	2.435	1.137	1.102	0.835	0.088	1274.	0.959	741.	0.558	620.	0.467	640.	0.482
0.083	3.141	2.381	1.133	1.130	0.856	0.084	1273.	0.959	742.	0.558	621.	0.468	640.	0.482
0.078	3.069	2.326	1.128	1.164	0.883	0.079	1272.	0.958	742.	0.559	622.	0.468	641.	0.482
0.075	2.991	2.267	1.125	1.222	0.926	0.076	1272.	0.958	743.	0.560	622.	0.469	641.	0.483
0.070	2.909	2.205	1.120	1.325	1.004	0.071	1269.	0.956	744.	0.560	623.	0.469	641.	0.483
0.065	2.806	2.127	1.115	1.458	1.105	0.066	1266.	0.953	745.	0.561	623.	0.469	642.	0.483
0.060	2.683	2.034	1.110	1.665	1.262	0.061	1259.	0.948	746.	0.562	624.	0.470	642.	0.483
0.055	2.552	1.935	1.105	1.857	1.408	0.056	1250.	0.941	747.	0.562	624.	0.470	642.	0.484
0.049	2.395	1.815	1.099	2.102	1.593	0.050	1233.	0.928	748.	0.563	625.	0.471	643.	0.484
0.044	2.213	1.677	1.094	2.375	1.800	0.045	1207.	0.909	749.	0.564	626.	0.471	643.	0.484
0.036	2.022	1.533	1.088	2.669	2.023	0.039	1174.	0.884	750.	0.564	626.	0.471	643.	0.484
0.034	1.838	1.393	1.084	2.940	2.228	0.035	1142.	0.860	750.	0.565	627.	0.472	644.	0.485
0.029	1.664	1.261	1.079	3.219	2.440	0.030	1111.	0.837	751.	0.566	627.	0.472	644.	0.485
0.025	1.510	1.145	1.075	3.470	2.630	0.026	1075.	0.810	752.	0.566	628.	0.473	644.	0.485
0.020	1.378	1.044	1.070	3.747	2.838	0.021	1038.	0.781	753.	0.567	628.	0.473	645.	0.485
0.015	1.259	0.954	1.065	4.028	3.053	0.016	992.	0.747	754.	0.568	629.	0.473	645.	0.486
0.010	1.153	0.874	1.060	4.187	3.174	0.011	945.	0.711	755.	0.568	629.	0.474	645.	0.486
0.006	1.066	0.808	1.056	4.261	3.230	0.007	875.	0.659	756.	0.569	630.	0.474	646.	0.486
0.007	0.902	0.683	1.057	4.277	3.242	0.008	869.	0.655	758.	0.570	631.	0.475	647.	0.487

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 ARNOLD-AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
36.	139	7.92	151.7	1328.	29.97	0.03	30.00	180.00	0					
T-INF	P-INF	PU1	Q-INF	U-INF	HMO-INF	PU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.0	0.0166	1.348	0.728	3846.	0.456E-03	0.254E-05	0.692E 06	22.58	0.0	1.00	22.58			
ZP1	PP1	PP1/PU1	ZP2	PP2	PP2/PU1	ZT2	TT2	TT2/TO	Th1	Th1/TO	Th2	Th2/TO	Th3	Th3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
			2.391	1.190	0.883	1.342	1262.	0.950	539.	0.406	532.	0.400	557.	0.419
			2.372	1.190	0.884	1.323	1263.	0.951	541.	0.407	533.	0.401	557.	0.419
			2.339	1.189	0.884	1.290	1263.	0.951	544.	0.409	534.	0.402	557.	0.420
			2.306	1.189	0.884	1.257	1263.	0.951	546.	0.411	535.	0.403	558.	0.420
			2.272	1.188	0.883	1.223	1263.	0.951	549.	0.413	537.	0.404	558.	0.420
			2.239	1.188	0.882	1.190	1262.	0.950	552.	0.415	538.	0.405	559.	0.421
1.155	4.413	3.279	2.205	1.187	0.882	1.156	1262.	0.950	554.	0.417	539.	0.406	559.	0.421
1.145	4.409	3.278	2.195	1.187	0.883	1.146	1261.	0.950	557.	0.420	540.	0.407	559.	0.421
1.136	4.403	3.274	2.186	1.188	0.883	1.137	1262.	0.950	560.	0.422	541.	0.408	560.	0.422
1.125	4.397	3.270	2.175	1.188	0.883	1.126	1262.	0.950	563.	0.424	542.	0.408	560.	0.422
1.113	4.387	3.264	2.163	1.187	0.883	1.114	1262.	0.950	565.	0.426	543.	0.409	561.	0.422
1.103	4.376	3.258	2.153	1.189	0.885	1.104	1261.	0.950	568.	0.428	545.	0.410	561.	0.422
1.099	4.367	3.251	2.149	1.184	0.882	1.100	1261.	0.950	571.	0.430	546.	0.411	562.	0.423
1.093	4.361	3.249	2.143	1.185	0.883	1.094	1262.	0.950	574.	0.432	547.	0.412	562.	0.423
1.087	4.353	3.247	2.137	1.185	0.884	1.088	1261.	0.950	576.	0.434	548.	0.412	562.	0.423
1.082	4.346	3.242	2.132	1.184	0.883	1.083	1261.	0.949	579.	0.436	549.	0.413	563.	0.424
1.077	4.341	3.239	2.127	1.185	0.884	1.078	1261.	0.950	582.	0.438	550.	0.414	563.	0.424
1.073	4.336	3.239	2.123	1.185	0.885	1.074	1261.	0.950	584.	0.440	551.	0.415	563.	0.424
1.069	4.329	3.236	2.119	1.183	0.884	1.070	1261.	0.950	587.	0.442	552.	0.416	564.	0.425
1.067	4.324	3.232	2.117	1.180	0.882	1.068	1261.	0.950	590.	0.444	553.	0.416	564.	0.425
1.063	4.319	3.231	2.113	1.181	0.883	1.064	1261.	0.950	592.	0.446	553.	0.417	565.	0.425
1.059	4.312	3.227	2.109	1.180	0.883	1.060	1261.	0.949	595.	0.448	555.	0.418	565.	0.425
1.055	4.311	3.226	2.105	1.181	0.884	1.056	1261.	0.950	597.	0.450	555.	0.418	565.	0.426
1.051	4.308	3.222	2.101	1.180	0.883	1.052	1261.	0.950	600.	0.452	556.	0.419	566.	0.426
1.049	4.304	3.221	2.099	1.181	0.884	1.050	1261.	0.950	602.	0.454	557.	0.420	566.	0.426
1.045	4.303	3.218	2.095	1.181	0.884	1.046	1261.	0.950	605.	0.455	558.	0.420	567.	0.427
1.043	4.300	3.216	2.093	1.182	0.884	1.044	1261.	0.950	607.	0.457	559.	0.421	567.	0.427
1.040	4.297	3.216	2.090	1.181	0.884	1.041	1261.	0.950	610.	0.459	560.	0.422	567.	0.427
1.037	4.294	3.212	2.087	1.180	0.883	1.038	1261.	0.950	612.	0.461	561.	0.423	568.	0.427
1.034	4.294	3.214	2.084	1.180	0.883	1.035	1261.	0.949	614.	0.462	562.	0.423	568.	0.428
1.031	4.291	3.211	2.081	1.182	0.885	1.032	1261.	0.949	616.	0.464	563.	0.424	568.	0.428
1.028	4.287	3.206	2.078	1.180	0.883	1.029	1261.	0.949	619.	0.466	564.	0.424	569.	0.428
1.026	4.284	3.207	2.076	1.182	0.885	1.027	1261.	0.949	621.	0.468	565.	0.425	569.	0.429
1.023	4.282	3.203	2.073	1.181	0.883	1.024	1261.	0.949	623.	0.469	565.	0.426	570.	0.429
1.021	4.279	3.200	2.071	1.180	0.883	1.022	1261.	0.950	625.	0.471	566.	0.426	570.	0.429
1.018	4.275	3.199	2.068	1.181	0.884	1.019	1261.	0.949	627.	0.473	567.	0.427	570.	0.429
1.016	4.269	3.195	2.066	1.179	0.883	1.017	1261.	0.949	630.	0.474	568.	0.428	571.	0.430
1.014	4.267	3.194	2.064	1.180	0.883	1.015	1260.	0.949	632.	0.476	569.	0.428	571.	0.430
1.011	4.265	3.195	2.061	1.182	0.885	1.012	1261.	0.949	634.	0.477	569.	0.429	571.	0.430
1.008	4.260	3.193	2.058	1.181	0.885	1.009	1261.	0.950	636.	0.479	570.	0.430	572.	0.431
1.006	4.255	3.189	2.056	1.180	0.885	1.007	1261.	0.949	638.	0.480	571.	0.430	572.	0.431
1.002	4.252	3.189	2.052	1.183	0.887	1.003	1261.	0.949	640.	0.482	572.	0.431	572.	0.431



ORIGINAL PAGE IS  
OF POOR QUALITY

DATE = 9-20-73  
PROJECT NUMBER--VA353-218A--  
ARO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/R1 OH9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW				
36.	139	7.92	150.0	1328.	30.00	0.00	30.00	180.00	0				
T-INF	P-INF	POI	G-INF	U-INF	RHO-INF	PC-INF	RE/FT	X	Y	X/L	L		
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)		
58.0	0.0164	1.333	0.720	3846.	0.451E-03	0.254E-05	0.684E 06	22.58	0.0	1.00	22.58		
ZP1	PP1	PP1/POI	ZP2	PP2	PP2/POI	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)	(DEG R)		(DEG R)		(DEG R)	
0.999	4.247	3.187	2.049	1.183	0.888	1.000	1261.	0.950	642.	0.483	573.	0.431	573.
0.997	4.244	3.185	2.047	1.185	0.890	0.998	1261.	0.949	644.	0.485	574.	0.432	573.
0.993	4.240	3.184	2.043	1.190	0.894	0.994	1261.	0.949	646.	0.486	574.	0.433	574.
0.991	4.234	3.180	2.041	1.194	0.897	0.992	1260.	0.949	648.	0.488	575.	0.433	574.
0.987	4.229	3.180	2.037	1.197	0.900	0.988	1261.	0.949	649.	0.489	576.	0.434	574.
0.984	4.226	3.178	2.034	1.204	0.905	0.985	1261.	0.949	651.	0.490	577.	0.434	575.
0.980	4.220	3.173	2.030	1.209	0.909	0.981	1260.	0.949	653.	0.492	578.	0.435	575.
0.977	4.216	3.172	2.027	1.218	0.917	0.978	1261.	0.949	655.	0.493	578.	0.436	575.
0.973	4.213	3.172	2.023	1.228	0.925	0.974	1260.	0.949	657.	0.494	579.	0.436	576.
0.971	4.209	3.171	2.021	1.236	0.932	0.972	1261.	0.949	658.	0.496	580.	0.436	576.
0.967	4.205	3.168	2.017	1.253	0.944	0.968	1260.	0.949	660.	0.497	581.	0.437	577.
0.964	4.200	3.164	2.014	1.261	0.950	0.965	1260.	0.949	662.	0.498	581.	0.438	577.
0.961	4.197	3.162	2.011	1.278	0.963	0.962	1260.	0.949	664.	0.500	582.	0.438	577.
0.958	4.195	3.161	2.008	1.305	0.983	0.959	1261.	0.949	665.	0.501	583.	0.439	578.
0.954	4.195	3.163	2.004	1.343	1.013	0.955	1261.	0.949	667.	0.502	583.	0.439	578.
0.950	4.191	3.160	2.000	1.386	1.045	0.951	1261.	0.949	668.	0.503	584.	0.440	578.
0.946	4.188	3.158	1.996	1.444	1.104	0.947	1261.	0.949	670.	0.505	585.	0.441	579.
0.943	4.184	3.154	1.993	1.545	1.165	0.944	1261.	0.949	672.	0.506	586.	0.441	579.
0.939	4.183	3.154	1.989	1.685	1.270	0.940	1261.	0.949	673.	0.507	586.	0.442	579.
0.934	4.182	3.155	1.984	1.834	1.384	0.935	1261.	0.949	675.	0.508	587.	0.442	580.
0.930	4.176	3.151	1.980	2.007	1.514	0.931	1260.	0.949	676.	0.509	588.	0.443	580.
0.927	4.175	3.150	1.977	2.161	1.631	0.928	1260.	0.949	678.	0.511	589.	0.443	580.
0.923	4.172	3.147	1.973	2.345	1.769	0.924	1260.	0.949	679.	0.512	589.	0.444	581.
0.919	4.168	3.144	1.969	2.541	1.917	0.920	1260.	0.949	681.	0.513	590.	0.444	581.
0.915	4.168	3.145	1.965	2.740	2.067	0.916	1260.	0.949	682.	0.514	591.	0.445	581.
0.910	4.165	3.143	1.960	2.962	2.235	0.911	1260.	0.949	684.	0.515	591.	0.445	582.
0.906	4.159	3.140	1.956	3.215	2.427	0.907	1261.	0.949	685.	0.516	592.	0.446	582.
0.903	4.157	3.141	1.953	3.442	2.600	0.904	1260.	0.949	687.	0.517	593.	0.446	583.
0.898	4.154	3.136	1.948	3.700	2.794	0.899	1260.	0.948	688.	0.518	593.	0.447	583.
0.894	4.150	3.135	1.944	3.897	2.944	0.895	1260.	0.949	690.	0.519	594.	0.447	583.
0.890	4.146	3.133	1.940	4.093	3.093	0.891	1260.	0.949	691.	0.520	595.	0.448	584.
0.887	4.147	3.135	1.937	4.214	3.186	0.888	1260.	0.949	692.	0.521	595.	0.448	584.
0.884	4.143	3.134	1.934	4.284	3.241	0.885	1260.	0.949	694.	0.522	596.	0.449	584.
0.881	4.139	3.133	1.931	4.348	3.291	0.882	1260.	0.949	695.	0.523	597.	0.449	585.
0.878	4.137	3.132	1.928	4.417	3.344	0.879	1260.	0.949	697.	0.525	597.	0.450	585.
0.875	4.135	3.130	1.925	4.430	3.354	0.876	1260.	0.949	698.	0.526	598.	0.450	585.
0.870	4.132	3.130	1.920	4.445	3.370	0.871	1260.	0.949	699.	0.527	599.	0.451	586.
0.867	4.131	3.129	1.917	4.464	3.382	0.868	1260.	0.949	700.	0.527	599.	0.451	586.
0.863	4.126	3.128	1.913	4.468	3.387	0.864	1260.	0.949	702.	0.528	600.	0.452	586.
0.861	4.122	3.124	1.911	4.475	3.392	0.862	1259.	0.948	703.	0.529	601.	0.453	587.
0.857	4.123	3.128	1.907	4.482	3.400	0.858	1259.	0.948	704.	0.530	601.	0.453	587.
0.853	4.124	3.128	1.903	4.489	3.405	0.854	1260.	0.949	706.	0.531	602.	0.453	587.

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 PROJECT NUMBER - VA353-21BA  
 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/RI 0-9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	HOLL-MODEL	YAW					
36.	139	7.92	148.5	1328.	30.00	0.00	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	WMO-INF (LBM/FT3)	MO-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
58.0	0.0162	1.318	0.713	3846.	0.447E-03	0.254E-05	0.677E 06	22.58	0.0	1.00	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
0.850	4.123	3.128	1.900	4.494	3.409	0.851	1260.	0.949	707.	0.532	603.	0.454	588.	0.443
0.847	4.122	3.125	1.897	4.502	3.412	0.848	1260.	0.949	708.	0.533	603.	0.454	588.	0.443
0.844	4.122	3.125	1.894	4.509	3.418	0.845	1260.	0.949	709.	0.534	604.	0.455	588.	0.443
0.840	4.123	3.125	1.890	4.518	3.425	0.841	1260.	0.949	711.	0.535	605.	0.455	589.	0.443
0.837	4.125	3.127	1.887	4.526	3.431	0.838	1260.	0.948	712.	0.536	605.	0.456	589.	0.444
0.834	4.123	3.125	1.884	4.533	3.436	0.835	1260.	0.949	713.	0.537	606.	0.456	589.	0.444
0.830	4.125	3.125	1.880	4.544	3.442	0.831	1260.	0.949	714.	0.538	607.	0.457	590.	0.444
0.827	4.123	3.123	1.877	4.549	3.446	0.828	1260.	0.949	715.	0.539	607.	0.457	590.	0.444
0.823	4.124	3.126	1.873	4.558	3.455	0.824	1260.	0.949	716.	0.540	608.	0.458	590.	0.445
0.819	4.124	3.126	1.869	4.566	3.461	0.820	1260.	0.948	718.	0.540	608.	0.458	591.	0.445
0.815	4.123	3.123	1.865	4.568	3.460	0.816	1260.	0.949	719.	0.541	609.	0.459	591.	0.445
0.812	4.122	3.123	1.862	4.577	3.467	0.813	1259.	0.948	720.	0.542	610.	0.459	591.	0.445
0.808	4.121	3.122	1.858	4.581	3.470	0.809	1260.	0.949	721.	0.543	610.	0.460	592.	0.446
0.804	4.120	3.123	1.854	4.588	3.478	0.805	1260.	0.949	722.	0.544	611.	0.460	592.	0.446
0.800	4.118	3.120	1.850	4.594	3.480	0.801	1259.	0.948	723.	0.545	612.	0.461	592.	0.446
0.797	4.119	3.122	1.847	4.601	3.487	0.798	1260.	0.949	724.	0.545	612.	0.461	593.	0.446
0.794	4.118	3.119	1.844	4.598	3.483	0.795	1260.	0.949	725.	0.546	613.	0.461	593.	0.447
0.790	4.115	3.117	1.840	4.605	3.488	0.791	1259.	0.948	727.	0.547	614.	0.462	593.	0.447
0.786	4.113	3.117	1.836	4.607	3.492	0.787	1259.	0.948	728.	0.548	614.	0.463	594.	0.447
0.783	4.113	3.118	1.833	4.614	3.497	0.784	1260.	0.949	729.	0.549	615.	0.463	594.	0.447
0.780	4.112	3.117	1.830	4.618	3.500	0.781	1260.	0.949	730.	0.550	615.	0.463	594.	0.447
0.776	4.111	3.116	1.826	4.617	3.500	0.777	1260.	0.949	731.	0.550	616.	0.464	595.	0.448
0.773	4.106	3.114	1.823	4.618	3.503	0.774	1259.	0.948	732.	0.551	616.	0.464	595.	0.448
0.769	4.104	3.113	1.819	4.623	3.506	0.770	1259.	0.948	733.	0.552	617.	0.465	595.	0.448
0.765	4.102	3.112	1.815	4.627	3.510	0.766	1260.	0.949	734.	0.553	618.	0.465	596.	0.448
0.762	4.100	3.110	1.812	4.626	3.509	0.763	1260.	0.949	735.	0.553	618.	0.465	596.	0.449
0.758	4.098	3.111	1.808	4.631	3.515	0.759	1259.	0.948	736.	0.554	619.	0.466	596.	0.449
0.754	4.094	3.108	1.804	4.632	3.516	0.755	1259.	0.948	737.	0.555	619.	0.466	596.	0.449
0.751	4.092	3.106	1.801	4.632	3.516	0.752	1259.	0.948	738.	0.556	620.	0.467	597.	0.449
0.747	4.089	3.104	1.797	4.637	3.519	0.748	1260.	0.948	739.	0.556	620.	0.467	597.	0.450
0.743	4.087	3.104	1.793	4.639	3.523	0.744	1259.	0.948	740.	0.557	621.	0.468	597.	0.450
0.739	4.084	3.102	1.789	4.636	3.521	0.740	1259.	0.948	741.	0.558	622.	0.468	598.	0.450
0.735	4.080	3.099	1.785	4.635	3.521	0.736	1259.	0.948	742.	0.559	622.	0.469	598.	0.450
0.732	4.078	3.100	1.782	4.635	3.523	0.733	1260.	0.948	743.	0.559	623.	0.469	598.	0.450
0.728	4.076	3.096	1.778	4.636	3.521	0.729	1259.	0.948	744.	0.560	623.	0.469	599.	0.451
0.724	4.073	3.095	1.774	4.636	3.524	0.725	1260.	0.949	745.	0.561	624.	0.470	599.	0.451
0.719	4.071	3.096	1.769	4.639	3.528	0.720	1260.	0.948	746.	0.561	625.	0.470	599.	0.451
0.714	4.067	3.093	1.764	4.637	3.527	0.715	1259.	0.948	746.	0.562	625.	0.471	599.	0.451
0.709	4.063	3.090	1.759	4.633	3.524	0.710	1259.	0.948	747.	0.563	626.	0.471	600.	0.452
0.706	4.061	3.091	1.756	4.637	3.529	0.707	1259.	0.948	748.	0.563	626.	0.471	600.	0.452
0.703	4.060	3.090	1.753	4.635	3.527	0.704	1259.	0.948	749.	0.564	627.	0.472	600.	0.452
0.700	4.056	3.089	1.750	4.635	3.530	0.701	1259.	0.948	750.	0.565	627.	0.472	601.	0.452

ORIGINAL PAGE IS  
OF POOR QUALITY

DATE = 9-20-73  
PROJECT NUMBER --VA353-218A  
ARO, INC.  
--ARNOLD-AIR FORCE STATION--TENN.  
NASA/RI OH9 SHUTTLE TEST  
PAGE --4--

GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
36.	139	7.92	147.9	1328.	30.00	0.0	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	PU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)	(IN)	(IN)			
98.0	0.0162	1.313	0.710	3846.	0.445E-03	0.254E-05	0.674E 06	22.58	0.0	1.00	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	Z12	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.697	4.053	3.087	1.747	4.636	3.531	0.698	1259.	0.948	751.	0.565	628.	0.473	601.	0.453
0.693	4.050	3.084	1.743	4.630	3.526	0.694	1259.	0.948	752.	0.566	629.	0.473	601.	0.453
0.689	4.048	3.083	1.739	4.631	3.527	0.690	1259.	0.948	753.	0.567	629.	0.474	602.	0.453
0.686	4.047	3.084	1.736	4.633	3.531	0.687	1259.	0.948	754.	0.567	629.	0.474	602.	0.453
0.682	4.044	3.082	1.732	4.631	3.529	0.683	1259.	0.948	754.	0.568	630.	0.474	602.	0.453
0.678	4.040	3.079	1.728	4.630	3.529	0.679	1259.	0.948	755.	0.569	631.	0.475	603.	0.454
0.675	4.040	3.079	1.725	4.632	3.530	0.676	1259.	0.948	756.	0.569	631.	0.475	603.	0.454
0.671	4.040	3.077	1.721	4.637	3.531	0.672	1259.	0.948	757.	0.570	632.	0.476	603.	0.454
0.667	4.039	3.076	1.717	4.638	3.532	0.668	1259.	0.948	758.	0.571	632.	0.476	603.	0.454
0.663	4.041	3.078	1.713	4.643	3.536	0.664	1259.	0.948	759.	0.571	633.	0.476	604.	0.455
0.660	4.044	3.078	1.710	4.647	3.537	0.661	1259.	0.948	760.	0.572	633.	0.477	604.	0.455
0.657	4.043	3.075	1.707	4.648	3.535	0.658	1259.	0.948	760.	0.573	634.	0.477	604.	0.455
0.654	4.047	3.076	1.704	4.655	3.538	0.655	1260.	0.948	761.	0.573	634.	0.478	605.	0.455
0.650	4.048	3.074	1.700	4.653	3.534	0.651	1259.	0.948	762.	0.574	635.	0.478	605.	0.455
0.646	4.050	3.074	1.696	4.663	3.539	0.647	1259.	0.948	763.	0.574	636.	0.479	605.	0.456
0.643	4.053	3.072	1.693	4.666	3.537	0.644	1259.	0.948	764.	0.575	636.	0.479	605.	0.456
0.641	4.056	3.075	1.691	4.671	3.541	0.642	1260.	0.948	764.	0.576	636.	0.479	606.	0.456
0.637	4.058	3.074	1.687	4.675	3.541	0.638	1259.	0.948	765.	0.576	637.	0.480	606.	0.456
0.633	4.058	3.072	1.683	4.673	3.538	0.634	1259.	0.948	766.	0.577	638.	0.480	606.	0.457
0.631	4.061	3.072	1.681	4.677	3.538	0.632	1259.	0.948	767.	0.577	638.	0.481	607.	0.457
0.628	4.063	3.071	1.678	4.681	3.539	0.629	1259.	0.948	768.	0.578	639.	0.481	607.	0.457
0.624	4.065	3.073	1.674	4.681	3.539	0.625	1260.	0.949	768.	0.579	639.	0.481	607.	0.457
0.620	4.065	3.071	1.670	4.681	3.536	0.621	1259.	0.948	769.	0.579	640.	0.482	607.	0.457
0.617	4.065	3.071	1.667	4.685	3.539	0.618	1259.	0.948	770.	0.580	640.	0.482	608.	0.458
0.613	4.063	3.069	1.663	4.681	3.537	0.614	1259.	0.948	771.	0.580	641.	0.483	608.	0.458
0.609	4.065	3.071	1.659	4.685	3.539	0.610	1259.	0.948	771.	0.581	641.	0.483	608.	0.458
0.607	4.063	3.071	1.657	4.681	3.539	0.608	1259.	0.948	772.	0.582	642.	0.483	609.	0.458
0.604	4.061	3.070	1.654	4.679	3.538	0.605	1259.	0.948	773.	0.582	642.	0.484	609.	0.459
0.601	4.060	3.069	1.651	4.681	3.539	0.602	1259.	0.948	774.	0.583	643.	0.484	609.	0.459
0.598	4.061	3.070	1.648	4.682	3.539	0.599	1259.	0.948	775.	0.583	644.	0.485	609.	0.459
0.595	4.062	3.071	1.645	4.682	3.539	0.596	1259.	0.948	775.	0.584	644.	0.485	610.	0.459
0.592	4.061	3.068	1.642	4.678	3.534	0.593	1259.	0.948	776.	0.584	644.	0.485	610.	0.459
0.589	4.060	3.069	1.639	4.681	3.539	0.590	1259.	0.948	777.	0.585	645.	0.486	610.	0.460
0.587	4.059	3.069	1.637	4.679	3.537	0.588	1259.	0.948	777.	0.585	646.	0.486	611.	0.460
0.584	4.055	3.065	1.634	4.676	3.535	0.585	1259.	0.948	778.	0.586	646.	0.487	611.	0.460
0.580	4.057	3.067	1.630	4.678	3.536	0.581	1259.	0.948	779.	0.586	647.	0.487	611.	0.460
0.577	4.055	3.065	1.627	4.677	3.536	0.578	1259.	0.948	780.	0.587	647.	0.487	612.	0.460
0.574	4.056	3.066	1.624	4.676	3.535	0.575	1259.	0.948	780.	0.588	648.	0.488	612.	0.461
0.571	4.055	3.066	1.621	4.677	3.536	0.572	1259.	0.948	781.	0.588	648.	0.488	612.	0.461
0.568	4.054	3.067	1.618	4.676	3.537	0.569	1259.	0.948	782.	0.589	649.	0.489	612.	0.461
0.564	4.054	3.067	1.614	4.672	3.535	0.565	1259.	0.948	782.	0.589	649.	0.489	613.	0.461
0.560	4.054	3.067	1.610	4.675	3.536	0.561	1259.	0.948	783.	0.590	649.	0.489	613.	0.461

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
36.	139	7.92	148.8	1328.	30.00	0.0	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	H00-INF	MU-INF	RE/FT	X	Y					
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)					
98.0	0.0163	1.321	0.714	3846.	0.447E-03	0.254E-05	0.678E 06	22.58	0.0					
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.557	4.053	3.068	1.607	4.673	3.537	0.558	1259.	0.948	784.	0.590	650.	0.490	613.	0.462
0.554	4.050	3.066	1.604	4.669	3.535	0.555	1259.	0.948	784.	0.591	651.	0.490	613.	0.462
0.550	4.049	3.065	1.600	4.670	3.535	0.551	1259.	0.948	785.	0.591	651.	0.490	614.	0.462
0.547	4.049	3.065	1.597	4.667	3.533	0.548	1259.	0.948	786.	0.592	651.	0.491	614.	0.462
0.543	4.050	3.066	1.593	4.669	3.534	0.544	1259.	0.948	786.	0.592	652.	0.491	614.	0.463
0.539	4.046	3.060	1.589	4.666	3.530	0.540	1259.	0.948	787.	0.593	653.	0.491	615.	0.463
0.537	4.047	3.064	1.587	4.667	3.533	0.538	1259.	0.948	788.	0.593	653.	0.492	615.	0.463
0.533	4.044	3.061	1.583	4.665	3.532	0.534	1260.	0.949	788.	0.594	653.	0.492	615.	0.463
0.530	4.043	3.063	1.580	4.666	3.534	0.531	1259.	0.948	789.	0.594	654.	0.492	615.	0.463
0.527	4.042	3.060	1.577	4.661	3.529	0.528	1260.	0.949	790.	0.595	654.	0.493	616.	0.464
0.523	4.040	3.060	1.573	4.650	3.528	0.524	1260.	0.948	790.	0.595	655.	0.493	616.	0.464
0.519	4.037	3.058	1.569	4.661	3.531	0.520	1259.	0.948	791.	0.596	656.	0.494	616.	0.464
0.517	4.037	3.058	1.567	4.656	3.527	0.518	1260.	0.949	792.	0.596	656.	0.494	616.	0.464
0.513	4.036	3.057	1.563	4.661	3.531	0.514	1260.	0.948	792.	0.597	656.	0.494	617.	0.464
0.509	4.031	3.053	1.559	4.655	3.526	0.510	1260.	0.949	793.	0.597	657.	0.495	617.	0.465
0.506	4.030	3.053	1.556	4.657	3.528	0.507	1260.	0.949	794.	0.598	657.	0.495	617.	0.465
0.502	4.027	3.051	1.552	4.651	3.523	0.503	1260.	0.949	810.	0.610	658.	0.495	618.	0.465
0.499	4.022	3.049	1.549	4.654	3.526	0.500	1260.	0.949	811.	0.611	658.	0.496	618.	0.465
0.494	4.020	3.047	1.544	4.650	3.525	0.495	1260.	0.949	811.	0.611	659.	0.496	618.	0.465
0.493	4.016	3.044	1.543	4.651	3.525	0.494	1260.	0.949	812.	0.612	659.	0.496	618.	0.466
0.489	4.011	3.040	1.539	4.649	3.524	0.490	1260.	0.949	813.	0.612	660.	0.497	619.	0.466
0.484	4.009	3.039	1.534	4.647	3.523	0.485	1260.	0.949	814.	0.613	660.	0.497	619.	0.466
0.480	4.005	3.036	1.530	4.646	3.522	0.481	1260.	0.949	814.	0.613	661.	0.497	619.	0.466
0.480	3.999	3.031	1.530	4.645	3.521	0.481	1260.	0.949	815.	0.614	661.	0.498	619.	0.466
0.477	3.997	3.029	1.527	4.642	3.519	0.478	1260.	0.949	816.	0.614	662.	0.498	620.	0.467
0.474	3.994	3.027	1.524	4.642	3.519	0.475	1260.	0.949	817.	0.615	662.	0.499	620.	0.467
0.471	3.990	3.025	1.521	4.642	3.519	0.472	1260.	0.949	817.	0.615	663.	0.499	620.	0.467
0.468	3.987	3.022	1.518	4.635	3.513	0.469	1260.	0.949	818.	0.616	663.	0.499	621.	0.467
0.465	3.983	3.021	1.515	4.637	3.517	0.466	1260.	0.949	819.	0.616	663.	0.500	621.	0.467
0.461	3.977	3.017	1.511	4.637	3.517	0.462	1260.	0.949	819.	0.617	664.	0.500	621.	0.468
0.455	3.970	3.010	1.505	4.636	3.514	0.456	1261.	0.949	820.	0.617	664.	0.500	621.	0.468
0.452	3.967	3.007	1.502	4.633	3.512	0.453	1261.	0.949	821.	0.618	665.	0.501	622.	0.468
0.448	3.958	3.002	1.498	4.632	3.513	0.449	1261.	0.949	821.	0.619	665.	0.501	622.	0.468
0.444	3.952	2.998	1.494	4.627	3.510	0.445	1261.	0.949	822.	0.619	666.	0.501	622.	0.469
0.441	3.944	2.992	1.491	4.623	3.507	0.442	1261.	0.949	823.	0.620	666.	0.502	622.	0.469
0.437	3.937	2.986	1.487	4.626	3.509	0.438	1261.	0.950	823.	0.620	667.	0.502	623.	0.469
0.434	3.933	2.983	1.484	4.624	3.507	0.435	1261.	0.950	824.	0.621	667.	0.502	623.	0.469
0.431	3.925	2.978	1.481	4.621	3.505	0.432	1261.	0.950	825.	0.621	668.	0.503	623.	0.469
0.427	3.919	2.973	1.477	4.618	3.503	0.428	1261.	0.950	825.	0.621	668.	0.503	623.	0.469
0.424	3.913	2.968	1.474	4.618	3.503	0.425	1261.	0.950	826.	0.622	668.	0.503	624.	0.470
0.421	3.904	2.962	1.471	4.615	3.501	0.422	1261.	0.950	826.	0.622	669.	0.504	624.	0.470
0.418	3.899	2.958	1.468	4.614	3.500	0.419	1261.	0.950	827.	0.623	670.	0.504	624.	0.470

ORIGINAL PAGE IS  
OF POOR QUALITY

DATE = 9-20-73  
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ARO, INC.  
ARNOLD AIR FORCE STATION--TENN.  
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GROUP	MODEL	WACH NO.	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
30.	139	7.92	148.5	1328.	30.00	0.0	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.0	0.0162	1.318	0.713	3846.	0.447E-03	0.254E-05	0.677E 06	22.58	0.0	1.00	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO	
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)	(DEG R)		(DEG R)		(DEG R)		
0.415	3.894	2.954	1.465	4.615	3.500	0.416	1262.	0.950	828.	0.623	670.	0.504	625.	0.470
0.412	3.887	2.949	1.462	4.611	3.498	0.413	1261.	0.949	828.	0.624	670.	0.505	625.	0.470
0.409	3.882	2.945	1.459	4.610	3.497	0.410	1261.	0.950	829.	0.624	671.	0.505	625.	0.471
0.405	3.874	2.939	1.455	4.609	3.496	0.406	1262.	0.950	830.	0.625	671.	0.505	625.	0.471
0.401	3.869	2.937	1.451	4.608	3.496	0.402	1261.	0.950	830.	0.625	672.	0.506	626.	0.471
0.398	3.858	2.927	1.448	4.602	3.491	0.399	1261.	0.950	831.	0.626	672.	0.506	626.	0.471
0.395	3.851	2.921	1.445	4.605	3.493	0.396	1262.	0.950	832.	0.626	673.	0.506	626.	0.471
0.392	3.845	2.917	1.442	4.603	3.491	0.393	1262.	0.950	832.	0.627	673.	0.507	626.	0.472
0.389	3.836	2.910	1.439	4.598	3.488	0.390	1262.	0.950	833.	0.627	673.	0.507	627.	0.472
0.385	3.831	2.906	1.435	4.595	3.485	0.386	1262.	0.950	834.	0.628	674.	0.507	627.	0.472
0.382	3.822	2.901	1.432	4.596	3.488	0.383	1262.	0.950	834.	0.628	674.	0.508	627.	0.472
0.379	3.812	2.894	1.429	4.592	3.486	0.380	1263.	0.951	835.	0.629	675.	0.508	627.	0.473
0.375	3.806	2.889	1.425	4.592	3.485	0.376	1262.	0.951	836.	0.629	675.	0.508	628.	0.473
0.371	3.794	2.880	1.421	4.589	3.483	0.372	1262.	0.951	836.	0.630	676.	0.509	628.	0.473
0.367	3.785	2.873	1.417	4.584	3.479	0.368	1263.	0.951	837.	0.630	676.	0.509	628.	0.473
0.364	3.777	2.869	1.414	4.585	3.482	0.365	1262.	0.950	838.	0.631	676.	0.509	629.	0.473
0.360	3.766	2.860	1.410	4.582	3.480	0.361	1262.	0.951	838.	0.631	677.	0.510	629.	0.473
0.356	3.753	2.849	1.406	4.578	3.475	0.357	1263.	0.951	839.	0.632	677.	0.510	629.	0.474
0.353	3.743	2.843	1.403	4.572	3.472	0.354	1262.	0.951	839.	0.632	678.	0.510	629.	0.474
0.349	3.734	2.836	1.399	4.571	3.472	0.350	1263.	0.951	840.	0.632	678.	0.511	630.	0.474
0.343	3.723	2.828	1.393	4.568	3.469	0.344	1263.	0.951	841.	0.633	679.	0.511	630.	0.474
0.338	3.709	2.817	1.388	4.562	3.465	0.339	1263.	0.951	841.	0.633	679.	0.511	630.	0.474
0.334	3.696	2.809	1.384	4.559	3.465	0.335	1263.	0.951	842.	0.634	680.	0.512	630.	0.475
0.330	3.684	2.800	1.380	4.556	3.463	0.331	1263.	0.951	842.	0.634	680.	0.512	631.	0.475
0.326	3.670	2.790	1.376	4.553	3.461	0.327	1264.	0.952	843.	0.635	680.	0.512	631.	0.475
0.323	3.661	2.781	1.373	4.551	3.456	0.324	1263.	0.951	844.	0.635	681.	0.512	631.	0.475
0.321	3.651	2.775	1.371	4.554	3.461	0.322	1263.	0.951	844.	0.636	681.	0.513	631.	0.475
0.319	3.639	2.764	1.369	4.547	3.454	0.320	1263.	0.951	845.	0.636	682.	0.513	632.	0.476
0.316	3.633	2.761	1.366	4.547	3.456	0.317	1263.	0.951	845.	0.637	682.	0.514	632.	0.476
0.312	3.624	2.752	1.362	4.540	3.448	0.313	1264.	0.952	846.	0.637	682.	0.514	632.	0.476
0.308	3.615	2.747	1.358	4.542	3.452	0.309	1264.	0.952	846.	0.637	683.	0.514	632.	0.476
0.304	3.605	2.738	1.354	4.537	3.446	0.305	1264.	0.952	847.	0.638	683.	0.514	633.	0.476
0.301	3.591	2.729	1.351	4.531	3.444	0.302	1263.	0.951	848.	0.638	684.	0.515	633.	0.477
0.297	3.581	2.720	1.347	4.527	3.438	0.298	1264.	0.952	848.	0.639	684.	0.515	633.	0.477
0.294	3.571	2.714	1.344	4.529	3.442	0.295	1264.	0.952	849.	0.639	684.	0.515	633.	0.477
0.291	3.559	2.705	1.341	4.523	3.437	0.292	1264.	0.952	849.	0.640	685.	0.516	634.	0.477
0.287	3.546	2.694	1.337	4.521	3.436	0.288	1264.	0.952	850.	0.640	685.	0.516	634.	0.477
0.284	3.535	2.686	1.334	4.515	3.434	0.285	1264.	0.952	851.	0.641	686.	0.516	634.	0.478
0.280	3.523	2.678	1.330	4.512	3.429	0.281	1264.	0.952	851.	0.641	686.	0.517	634.	0.478
0.277	3.515	2.673	1.327	4.513	3.432	0.276	1264.	0.952	852.	0.641	686.	0.517	635.	0.478
0.274	3.503	2.664	1.324	4.509	3.429	0.275	1264.	0.952	852.	0.642	687.	0.517	635.	0.478
0.271	3.489	2.652	1.321	4.505	3.424	0.272	1264.	0.952	853.	0.642	687.	0.518	635.	0.478

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GROUP	MODEL	MACH NO	PC(PSIA)	TO( DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
36.	139	7.92	146.2	1328.	30.00	0.0	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	WU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.0	0.0162	1.316	0.711	3846.	0.446E-03	0.254E-05	0.675E 06	22.58	0.0	1.00	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/T0	Tw1 (DEG R)	Tw1/T0	Tw2 (DEG R)	Tw2/T0	Tw3 (DEG R)	Tw3/T0
0.268	3.402	2.646	1.318	4.505	3.424	0.269	1264.	0.952	853.	0.643	688.	0.518	635.	0.479
0.264	3.469	2.636	1.314	4.500	3.420	0.265	1264.	0.952	854.	0.643	688.	0.518	636.	0.479
0.261	3.456	2.627	1.311	4.495	3.417	0.262	1265.	0.952	855.	0.643	689.	0.519	636.	0.479
0.258	3.446	2.619	1.308	4.493	3.415	0.259	1265.	0.952	855.	0.644	689.	0.519	636.	0.479
0.255	3.435	2.611	1.305	4.493	3.415	0.256	1265.	0.952	856.	0.644	689.	0.519	637.	0.479
0.252	3.424	2.604	1.302	4.489	3.415	0.253	1264.	0.952	856.	0.645	690.	0.519	637.	0.479
0.249	3.412	2.595	1.299	4.480	3.412	0.250	1265.	0.952	857.	0.645	690.	0.520	637.	0.480
0.245	3.398	2.586	1.295	4.479	3.409	0.246	1265.	0.952	857.	0.646	691.	0.520	637.	0.480
0.242	3.388	2.577	1.292	4.478	3.406	0.243	1265.	0.952	858.	0.646	691.	0.520	638.	0.480
0.239	3.376	2.569	1.289	4.475	3.406	0.240	1265.	0.953	858.	0.646	691.	0.520	638.	0.480
0.236	3.364	2.558	1.286	4.476	3.405	0.237	1265.	0.952	859.	0.647	692.	0.521	638.	0.480
0.233	3.348	2.548	1.283	4.471	3.403	0.234	1265.	0.953	859.	0.647	692.	0.521	638.	0.481
0.229	3.335	2.538	1.279	4.462	3.396	0.230	1265.	0.953	860.	0.648	693.	0.522	639.	0.481
0.226	3.322	2.529	1.276	4.460	3.395	0.227	1265.	0.953	860.	0.648	693.	0.522	639.	0.481
0.223	3.308	2.518	1.273	4.459	3.394	0.224	1266.	0.953	861.	0.648	693.	0.522	639.	0.481
0.219	3.295	2.508	1.269	4.457	3.393	0.220	1265.	0.953	862.	0.649	694.	0.522	639.	0.481
0.216	3.277	2.494	1.266	4.453	3.389	0.217	1265.	0.953	862.	0.649	694.	0.523	640.	0.482
0.212	3.263	2.484	1.262	4.448	3.380	0.213	1266.	0.953	863.	0.649	694.	0.523	640.	0.482
0.208	3.247	2.472	1.258	4.446	3.384	0.209	1266.	0.953	863.	0.650	695.	0.523	640.	0.482
0.205	3.228	2.457	1.255	4.440	3.380	0.206	1265.	0.953	864.	0.650	695.	0.524	640.	0.482
0.201	3.207	2.439	1.251	4.437	3.375	0.202	1266.	0.953	864.	0.651	696.	0.524	641.	0.482
0.197	3.185	2.424	1.247	4.432	3.374	0.198	1266.	0.953	865.	0.651	696.	0.524	641.	0.483
0.194	3.164	2.408	1.244	4.432	3.374	0.195	1266.	0.954	865.	0.651	696.	0.524	641.	0.483
0.189	3.141	2.391	1.239	4.427	3.370	0.190	1266.	0.954	866.	0.652	697.	0.525	641.	0.483
0.185	3.115	2.371	1.235	4.424	3.367	0.186	1266.	0.954	866.	0.652	697.	0.525	642.	0.483
0.181	3.086	2.349	1.231	4.422	3.366	0.182	1266.	0.953	867.	0.652	698.	0.525	642.	0.483
0.177	3.055	2.325	1.227	4.413	3.359	0.178	1266.	0.953	867.	0.652	698.	0.525	642.	0.483
0.173	3.025	2.304	1.223	4.411	3.360	0.174	1266.	0.953	868.	0.653	698.	0.525	642.	0.483
0.169	2.991	2.277	1.219	4.410	3.357	0.170	1266.	0.953	868.	0.653	699.	0.526	643.	0.484
0.165	2.954	2.250	1.215	4.407	3.356	0.166	1265.	0.952	869.	0.654	699.	0.526	643.	0.484
0.162	2.916	2.221	1.212	4.399	3.351	0.163	1266.	0.952	869.	0.654	699.	0.526	643.	0.484
0.159	2.882	2.195	1.209	4.399	3.351	0.160	1266.	0.952	870.	0.654	700.	0.527	643.	0.484
0.155	2.846	2.168	1.205	4.401	3.352	0.156	1265.	0.952	870.	0.655	700.	0.527	644.	0.484
0.152	2.804	2.136	1.202	4.397	3.349	0.153	1264.	0.951	871.	0.655	701.	0.527	644.	0.484
0.148	2.760	2.102	1.198	4.395	3.348	0.149	1264.	0.951	871.	0.655	701.	0.528	644.	0.485
0.145	2.713	2.066	1.195	4.392	3.345	0.146	1263.	0.951	872.	0.656	701.	0.528	644.	0.485
0.142	2.665	2.031	1.192	4.388	3.345	0.143	1261.	0.949	872.	0.656	702.	0.528	645.	0.485
0.139	2.614	1.991	1.189	4.388	3.342	0.140	1260.	0.948	873.	0.657	702.	0.528	645.	0.485
0.136	2.560	1.950	1.186	4.387	3.341	0.137	1259.	0.947	873.	0.657	702.	0.529	645.	0.485
0.133	2.503	1.906	1.183	4.384	3.339	0.134	1256.	0.945	873.	0.657	703.	0.529	645.	0.486
0.130	2.441	1.860	1.180	4.381	3.339	0.131	1253.	0.943	874.	0.658	703.	0.529	646.	0.486
0.126	2.377	1.810	1.176	4.378	3.335	0.127	1248.	0.939	874.	0.658	704.	0.529	646.	0.486

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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
36.	139	7.92	147.9	1329.	30.00	0.0	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.1	0.0162	1.313	0.710	3847.	0.444E-03	0.254E-05	0.673E 06	22.58	0.0	1.00	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.123	2.307	1.757	1.173	4.378	3.335	0.124	1244.	0.936	875.	0.658	704.	0.530	646.	0.486
0.119	2.238	1.705	1.169	4.376	3.335	0.120	1239.	0.932	875.	0.659	704.	0.530	646.	0.486
0.116	2.165	1.650	1.166	4.372	3.332	0.117	1234.	0.928	876.	0.659	705.	0.530	647.	0.487
0.113	2.096	1.596	1.163	4.371	3.329	0.114	1227.	0.923	876.	0.659	705.	0.530	647.	0.487
0.110	2.022	1.541	1.160	4.371	3.332	0.111	1220.	0.918	877.	0.660	705.	0.531	647.	0.487
0.107	1.947	1.484	1.157	4.365	3.327	0.108	1212.	0.912	877.	0.660	706.	0.531	647.	0.487
0.103	1.877	1.430	1.153	4.365	3.325	0.104	1204.	0.906	878.	0.660	706.	0.531	648.	0.487
0.100	1.810	1.380	1.150	4.364	3.326	0.101	1195.	0.899	878.	0.661	706.	0.531	648.	0.487
0.097	1.745	1.329	1.147	4.358	3.319	0.098	1185.	0.892	879.	0.661	707.	0.532	648.	0.488
0.094	1.676	1.277	1.144	4.361	3.324	0.095	1174.	0.884	879.	0.661	707.	0.532	648.	0.488
0.090	1.611	1.227	1.140	4.356	3.318	0.091	1163.	0.875	880.	0.662	708.	0.532	649.	0.488
0.087	1.547	1.178	1.137	4.359	3.320	0.088	1152.	0.867	880.	0.662	708.	0.533	649.	0.488
0.083	1.485	1.131	1.133	4.359	3.320	0.084	1139.	0.857	880.	0.663	708.	0.533	649.	0.488
0.081	1.423	1.083	1.131	4.359	3.318	0.082	1127.	0.848	881.	0.663	709.	0.533	649.	0.489
0.077	1.363	1.037	1.127	4.357	3.316	0.078	1112.	0.837	881.	0.663	709.	0.534	650.	0.489
0.075	1.302	0.990	1.125	4.355	3.313	0.076	1098.	0.826	882.	0.664	709.	0.534	650.	0.489
0.071	1.242	0.945	1.121	4.354	3.311	0.072	1083.	0.815	882.	0.664	710.	0.534	650.	0.489
0.067	1.188	0.903	1.117	4.356	3.313	0.068	1067.	0.803	883.	0.664	710.	0.534	650.	0.489
0.065	1.134	0.862	1.115	4.351	3.307	0.066	1054.	0.793	883.	0.665	710.	0.535	651.	0.490
0.061	1.082	0.823	1.111	4.350	3.309	0.062	1039.	0.782	884.	0.665	711.	0.535	651.	0.490
0.058	1.030	0.783	1.108	4.348	3.305	0.059	1025.	0.771	884.	0.665	711.	0.535	651.	0.490
0.055	0.983	0.747	1.105	4.347	3.304	0.056	1010.	0.760	885.	0.666	711.	0.535	651.	0.490
0.052	0.937	0.711	1.102	4.348	3.303	0.053	995.	0.749	885.	0.666	712.	0.536	652.	0.490
0.047	0.894	0.679	1.097	4.344	3.300	0.048	978.	0.736	885.	0.666	712.	0.536	652.	0.490
0.044	0.850	0.646	1.094	4.343	3.297	0.045	963.	0.724	886.	0.667	713.	0.536	652.	0.491
0.039	0.811	0.616	1.089	4.340	3.297	0.040	949.	0.714	886.	0.667	713.	0.536	652.	0.491
0.035	0.771	0.586	1.085	4.341	3.297	0.036	925.	0.696	887.	0.667	713.	0.537	653.	0.491
0.029	0.731	0.555	1.079	4.336	3.291	0.030	904.	0.680	887.	0.668	714.	0.537	653.	0.491
0.024	0.696	0.528	1.074	4.332	3.286	0.025	883.	0.665	888.	0.668	714.	0.537	653.	0.491
0.021	0.663	0.503	1.071	4.331	3.285	0.022	864.	0.650	888.	0.668	714.	0.537	653.	0.492
0.017	0.630	0.478	1.067	4.328	3.283	0.018	847.	0.637	888.	0.668	715.	0.538	654.	0.492
0.013	0.604	0.458	1.063	4.328	3.281	0.014	833.	0.627	889.	0.669	715.	0.538	654.	0.492
0.009	0.579	0.439	1.059	4.326	3.279	0.010	818.	0.616	889.	0.669	715.	0.538	654.	0.492
0.007	0.553	0.419	1.057	4.322	3.274	0.008	801.	0.602	890.	0.669	716.	0.539	654.	0.492
0.007	0.519	0.393	1.057	4.323	3.273	0.008	753.	0.567	890.	0.670	716.	0.539	655.	0.493

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 NASA/KI OM9 SHUTTLE TEST  
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GROUP-37	MODEL-139	MACH NO-7.92	PO (PSIA)-150.3	TO (DEG R)-1330.	ALPHA-MODEL-29.98	ALPHA-SECTOR-0.02	ALPHA-PREBEND-30.00	ROLL-MODEL-180.00	YAW-0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	WMO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.2	0.0164	1.335	0.722	3848.	0.452E-03	0.254E-05	0.684E 06	20.32	0.0	0.90	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
			2.398	1.182	0.885	1.349	1267.	0.953	543.	0.408	544.	0.409	555.	0.418
			2.398	1.181	0.884	1.349	1266.	0.952	545.	0.410	546.	0.410	556.	0.418
1.338	4.453	3.353	2.388	1.176	0.885	1.339	1265.	0.951	574.	0.431	557.	0.419	560.	0.421
1.303	4.453	3.355	2.353	1.173	0.884	1.304	1266.	0.952	577.	0.434	558.	0.420	561.	0.422
1.267	4.458	3.362	2.317	1.172	0.884	1.268	1266.	0.952	579.	0.436	559.	0.420	561.	0.422
1.232	4.466	3.372	2.282	1.172	0.885	1.233	1267.	0.952	582.	0.438	560.	0.421	562.	0.422
1.197	4.476	3.382	2.247	1.171	0.885	1.198	1267.	0.952	585.	0.440	561.	0.422	562.	0.423
1.161	4.490	3.395	2.211	1.170	0.884	1.162	1267.	0.953	588.	0.442	562.	0.423	563.	0.423
1.127	4.504	3.405	2.177	1.167	0.883	1.128	1267.	0.953	590.	0.444	563.	0.423	563.	0.423
1.094	4.525	3.424	2.144	1.168	0.883	1.095	1267.	0.952	593.	0.446	564.	0.424	563.	0.424
1.062	4.553	3.447	2.112	1.168	0.884	1.063	1266.	0.952	596.	0.448	565.	0.425	564.	0.424
1.031	4.583	3.474	2.081	1.166	0.884	1.032	1267.	0.953	598.	0.450	566.	0.426	564.	0.424
1.001	4.608	3.498	2.051	1.165	0.884	1.002	1267.	0.952	601.	0.452	567.	0.426	565.	0.425
0.969	4.630	3.514	2.019	1.165	0.884	0.970	1267.	0.952	603.	0.454	568.	0.427	565.	0.425
0.938	4.646	3.531	1.988	1.165	0.885	0.939	1267.	0.953	606.	0.455	569.	0.428	566.	0.425
0.906	4.657	3.539	1.956	1.162	0.883	0.907	1266.	0.952	608.	0.457	570.	0.429	566.	0.426
0.873	4.664	3.549	1.923	1.162	0.884	0.874	1267.	0.953	611.	0.459	571.	0.429	566.	0.426
0.841	4.669	3.556	1.891	1.162	0.885	0.842	1267.	0.953	613.	0.461	572.	0.430	567.	0.426
0.809	4.677	3.567	1.859	1.162	0.886	0.810	1266.	0.952	616.	0.463	572.	0.430	567.	0.426
0.777	4.691	3.580	1.827	1.160	0.885	0.778	1266.	0.952	618.	0.465	573.	0.431	568.	0.427
0.745	4.712	3.598	1.795	1.159	0.885	0.746	1266.	0.952	620.	0.466	574.	0.432	568.	0.427
0.713	4.734	3.618	1.763	1.160	0.887	0.714	1266.	0.952	623.	0.468	575.	0.432	568.	0.427
0.681	4.750	3.632	1.731	1.157	0.885	0.682	1266.	0.952	625.	0.470	576.	0.433	569.	0.428
0.648	4.763	3.647	1.698	1.159	0.887	0.649	1266.	0.952	627.	0.471	577.	0.434	569.	0.428
0.616	4.767	3.653	1.666	1.207	0.925	0.617	1265.	0.951	629.	0.473	578.	0.434	570.	0.428
0.583	4.766	3.654	1.633	1.516	1.163	0.584	1265.	0.951	631.	0.475	579.	0.435	570.	0.429
0.552	4.766	3.654	1.602	2.903	2.226	0.553	1265.	0.951	634.	0.476	579.	0.436	570.	0.429
0.519	4.773	3.660	1.569	4.308	3.304	0.520	1265.	0.951	636.	0.478	580.	0.436	571.	0.429
0.487	4.787	3.665	1.537	4.377	3.352	0.488	1265.	0.951	638.	0.480	581.	0.437	571.	0.429
0.455	4.798	3.669	1.505	4.398	3.364	0.456	1266.	0.952	640.	0.481	582.	0.437	572.	0.430
0.423	4.796	3.660	1.473	4.411	3.367	0.424	1266.	0.952	642.	0.483	583.	0.438	572.	0.430
0.391	4.769	3.634	1.441	4.424	3.372	0.392	1267.	0.952	644.	0.484	583.	0.439	573.	0.431
			1.408	4.438	3.380	0.359	1267.	0.952	646.	0.486	584.	0.439	573.	0.431
			1.393	4.447	3.380	0.344	1267.	0.953	648.	0.487	585.	0.440	574.	0.432
			1.388	4.454	3.383	0.339	1267.	0.953	650.	0.489	586.	0.441	575.	0.432
0.337	4.561	3.462	1.387	4.457	3.383	0.338	1268.	0.953	652.	0.490	587.	0.441	575.	0.432
0.334	4.550	3.449	1.384	4.467	3.386	0.335	1268.	0.953	654.	0.492	587.	0.442	576.	0.433
0.332	4.539	3.439	1.382	4.468	3.385	0.333	1268.	0.953	656.	0.493	588.	0.442	576.	0.433
0.330	4.531	3.430	1.380	4.471	3.385	0.331	1267.	0.953	657.	0.494	589.	0.443	576.	0.433
0.328	4.523	3.422	1.378	4.471	3.383	0.329	1267.	0.953	659.	0.496	590.	0.443	577.	0.434
0.325	4.515	3.414	1.375	4.476	3.384	0.326	1267.	0.953	661.	0.497	590.	0.444	577.	0.434
0.323	4.507	3.405	1.373	4.480	3.385	0.324	1268.	0.953	663.	0.498	591.	0.444	578.	0.434



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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
37.	139	7.92	149.1	1330.	30.00	0.0	30.00	180.00	0					
T-INF	P-INF	PO1	O-INF	U-INF	KHO-INF	MO-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.2	0.0163	1.324	0.716	3848.	0.448E-03	0.254E-05	0.678E 06	20.32	0.0	0.90	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.321	4.459	3.399	1.371	4.485	3.389	0.322	1268.	0.953	665.	0.500	592.	0.445	578.	0.435
0.318	4.456	3.389	1.368	4.484	3.388	0.319	1268.	0.953	666.	0.501	593.	0.446	579.	0.435
0.316	4.475	3.381	1.366	4.484	3.388	0.317	1268.	0.953	668.	0.502	593.	0.446	579.	0.435
0.313	4.463	3.370	1.363	4.486	3.387	0.314	1268.	0.953	670.	0.504	594.	0.447	579.	0.436
0.310	4.451	3.360	1.360	4.490	3.390	0.311	1268.	0.953	672.	0.505	595.	0.447	580.	0.436
0.307	4.437	3.350	1.357	4.489	3.389	0.308	1268.	0.954	673.	0.506	596.	0.448	580.	0.436
0.305	4.427	3.343	1.355	4.489	3.389	0.306	1268.	0.953	675.	0.508	596.	0.448	581.	0.437
0.302	4.414	3.333	1.352	4.493	3.393	0.303	1268.	0.953	677.	0.509	597.	0.449	581.	0.437
0.300	4.402	3.321	1.350	4.491	3.389	0.301	1268.	0.953	678.	0.510	598.	0.450	581.	0.437
0.298	4.390	3.315	1.348	4.492	3.392	0.299	1268.	0.954	680.	0.511	599.	0.450	582.	0.437
0.293	4.378	3.306	1.343	4.491	3.391	0.294	1268.	0.954	681.	0.512	599.	0.451	582.	0.438
0.289	4.359	3.291	1.339	4.493	3.393	0.290	1269.	0.954	683.	0.514	600.	0.451	583.	0.436
0.284	4.339	3.276	1.334	4.492	3.392	0.285	1268.	0.954	685.	0.515	601.	0.452	583.	0.436
0.279	4.317	3.259	1.329	4.490	3.390	0.280	1268.	0.954	686.	0.516	601.	0.452	583.	0.439
0.276	4.296	3.244	1.326	4.492	3.392	0.277	1268.	0.954	688.	0.517	602.	0.452	584.	0.439
0.273	4.276	3.231	1.323	4.492	3.394	0.274	1269.	0.954	689.	0.518	603.	0.453	584.	0.439
0.270	4.257	3.214	1.320	4.492	3.392	0.271	1268.	0.954	691.	0.519	603.	0.454	584.	0.439
0.267	4.239	3.203	1.317	4.491	3.393	0.268	1269.	0.954	692.	0.520	604.	0.454	585.	0.440
0.264	4.224	3.191	1.314	4.489	3.392	0.265	1268.	0.954	693.	0.521	605.	0.455	585.	0.440
0.260	4.204	3.178	1.310	4.490	3.395	0.261	1269.	0.954	695.	0.522	605.	0.455	585.	0.440
0.257	4.188	3.166	1.307	4.490	3.395	0.258	1269.	0.954	696.	0.524	606.	0.456	586.	0.440
0.255	4.173	3.155	1.305	4.489	3.394	0.256	1269.	0.954	698.	0.525	607.	0.456	586.	0.441
0.253	4.158	3.145	1.303	4.489	3.396	0.254	1269.	0.954	699.	0.526	607.	0.457	586.	0.441
0.250	4.144	3.137	1.300	4.487	3.397	0.251	1269.	0.954	701.	0.527	608.	0.457	587.	0.441
0.247	4.129	3.128	1.297	4.489	3.401	0.248	1269.	0.954	702.	0.528	609.	0.458	587.	0.442
0.244	4.112	3.115	1.294	4.487	3.399	0.245	1269.	0.954	703.	0.529	609.	0.458	588.	0.442
0.240	4.093	3.101	1.290	4.485	3.398	0.241	1269.	0.954	705.	0.530	610.	0.459	588.	0.442
0.237	4.077	3.090	1.287	4.485	3.401	0.238	1269.	0.954	706.	0.531	611.	0.459	588.	0.442
0.235	4.061	3.078	1.285	4.485	3.401	0.236	1269.	0.954	707.	0.532	611.	0.460	589.	0.443
0.231	4.043	3.067	1.281	4.482	3.400	0.232	1269.	0.954	709.	0.533	612.	0.460	589.	0.443
0.228	4.023	3.054	1.278	4.485	3.405	0.229	1270.	0.955	710.	0.534	613.	0.461	589.	0.443
0.224	4.007	3.039	1.274	4.483	3.401	0.225	1270.	0.955	711.	0.535	613.	0.461	590.	0.443
0.221	3.989	3.027	1.271	4.486	3.405	0.222	1270.	0.955	712.	0.536	614.	0.461	590.	0.444
0.217	3.968	3.012	1.267	4.485	3.405	0.218	1270.	0.955	714.	0.537	614.	0.462	590.	0.444
0.214	3.946	2.999	1.264	4.482	3.407	0.215	1270.	0.955	715.	0.538	615.	0.463	591.	0.444
0.211	3.927	2.985	1.261	4.485	3.409	0.212	1270.	0.955	716.	0.538	616.	0.463	591.	0.444
0.208	3.908	2.970	1.258	4.485	3.409	0.209	1270.	0.955	717.	0.539	616.	0.463	592.	0.445
0.205	3.888	2.955	1.255	4.484	3.409	0.206	1270.	0.955	719.	0.540	617.	0.464	592.	0.445
0.201	3.870	2.942	1.251	4.485	3.409	0.202	1270.	0.955	720.	0.541	618.	0.465	592.	0.445
0.198	3.848	2.929	1.248	4.484	3.413	0.199	1270.	0.955	721.	0.542	618.	0.465	593.	0.446
0.195	3.829	2.912	1.245	4.481	3.409	0.196	1270.	0.955	722.	0.543	619.	0.465	593.	0.446
0.191	3.809	2.899	1.241	4.481	3.411	0.192	1271.	0.956	723.	0.544	619.	0.466	593.	0.446

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
37.	139	7.92	148.0	1330.	30.00	0.0	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	PU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.2	0.0162	1.314	0.710	3848.	0.444E-03	0.254E-05	0.673E 06	20.32	0.0	0.90	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.188	3.789	2.884	1.238	4.486	3.415	0.189	1271.	0.955	724.	0.545	620.	0.456	594.	0.446
0.185	3.766	2.866	1.235	4.486	3.415	0.186	1271.	0.956	726.	0.546	621.	0.467	594.	0.447
0.181	3.746	2.851	1.231	4.490	3.418	0.182	1272.	0.956	727.	0.546	621.	0.467	594.	0.447
0.178	3.724	2.834	1.228	4.489	3.417	0.179	1271.	0.956	728.	0.547	622.	0.468	595.	0.447
0.176	3.704	2.819	1.226	4.494	3.421	0.177	1271.	0.956	729.	0.548	623.	0.468	595.	0.447
0.172	3.684	2.804	1.222	4.496	3.422	0.173	1272.	0.956	730.	0.549	623.	0.468	595.	0.448
0.169	3.663	2.788	1.219	4.500	3.425	0.170	1271.	0.956	731.	0.550	624.	0.469	596.	0.448
0.167	3.641	2.771	1.217	4.501	3.425	0.168	1272.	0.956	732.	0.551	624.	0.469	596.	0.448
0.163	3.618	2.752	1.213	4.497	3.421	0.164	1272.	0.956	733.	0.551	625.	0.470	597.	0.449
0.161	3.596	2.735	1.211	4.502	3.424	0.162	1272.	0.957	734.	0.552	626.	0.470	597.	0.449
0.158	3.575	2.719	1.208	4.502	3.424	0.159	1272.	0.957	735.	0.553	626.	0.471	597.	0.449
0.155	3.550	2.702	1.205	4.507	3.430	0.156	1272.	0.957	737.	0.554	627.	0.471	598.	0.449
0.152	3.522	2.679	1.202	4.505	3.426	0.153	1273.	0.957	738.	0.555	627.	0.472	598.	0.450
0.149	3.491	2.657	1.199	4.506	3.429	0.150	1273.	0.957	739.	0.555	628.	0.472	599.	0.450
0.146	3.464	2.637	1.196	4.511	3.433	0.147	1273.	0.957	740.	0.556	628.	0.472	599.	0.450
0.142	3.431	2.610	1.192	4.516	3.435	0.143	1273.	0.957	741.	0.557	629.	0.473	599.	0.451
0.139	3.396	2.583	1.189	4.513	3.433	0.140	1273.	0.957	742.	0.558	630.	0.473	600.	0.451
0.137	3.360	2.556	1.187	4.516	3.435	0.138	1272.	0.957	743.	0.558	630.	0.474	600.	0.451
0.134	3.320	2.526	1.184	4.515	3.434	0.135	1272.	0.957	744.	0.559	631.	0.474	601.	0.452
0.131	3.281	2.498	1.181	4.515	3.436	0.132	1272.	0.957	745.	0.560	631.	0.475	601.	0.452
0.128	3.241	2.467	1.178	4.518	3.438	0.129	1272.	0.957	746.	0.561	632.	0.475	601.	0.452
0.125	3.200	2.437	1.175	4.518	3.441	0.126	1272.	0.956	747.	0.561	632.	0.475	602.	0.452
0.122	3.152	2.401	1.172	4.518	3.441	0.123	1271.	0.956	748.	0.562	633.	0.476	602.	0.453
0.118	3.099	2.360	1.168	4.517	3.440	0.119	1270.	0.955	749.	0.563	634.	0.476	603.	0.453
0.115	3.037	2.313	1.165	4.520	3.442	0.116	1269.	0.954	750.	0.564	634.	0.477	603.	0.453
0.112	2.973	2.264	1.162	4.522	3.444	0.113	1267.	0.953	750.	0.564	635.	0.477	604.	0.454
0.108	2.899	2.210	1.156	4.522	3.446	0.109	1266.	0.952	751.	0.565	635.	0.478	604.	0.454
0.105	2.822	2.151	1.155	4.522	3.446	0.106	1262.	0.949	752.	0.566	636.	0.478	604.	0.454
0.102	2.742	2.090	1.152	4.522	3.446	0.103	1259.	0.947	753.	0.566	636.	0.479	605.	0.455
0.098	2.660	2.026	1.148	4.526	3.449	0.099	1254.	0.943	754.	0.567	637.	0.479	606.	0.455
0.094	2.567	1.957	1.144	4.527	3.450	0.095	1248.	0.938	755.	0.568	637.	0.479	606.	0.456
0.090	2.467	1.880	1.140	4.528	3.451	0.091	1240.	0.933	756.	0.568	638.	0.480	607.	0.456
0.088	2.364	1.803	1.138	4.529	3.454	0.089	1231.	0.925	757.	0.569	639.	0.480	607.	0.457
0.084	2.259	1.723	1.134	4.528	3.453	0.085	1222.	0.918	758.	0.570	639.	0.481	608.	0.457
0.081	2.154	1.642	1.131	4.530	3.454	0.082	1210.	0.910	759.	0.570	640.	0.481	608.	0.458
0.077	2.050	1.565	1.127	4.531	3.458	0.078	1195.	0.899	760.	0.571	640.	0.481	609.	0.458
0.073	1.940	1.481	1.123	4.534	3.460	0.074	1180.	0.887	760.	0.572	641.	0.482	610.	0.458
0.070	1.831	1.398	1.120	4.536	3.461	0.071	1161.	0.873	761.	0.572	641.	0.482	610.	0.459
0.065	1.722	1.315	1.115	4.539	3.466	0.066	1142.	0.858	762.	0.573	642.	0.483	611.	0.460
0.062	1.616	1.234	1.112	4.539	3.466	0.063	1125.	0.846	763.	0.574	642.	0.483	612.	0.460
0.060	1.521	1.162	1.110	4.543	3.469	0.061	1106.	0.831	764.	0.574	643.	0.483	613.	0.460
0.056	1.431	1.093	1.106	4.544	3.470	0.057	1087.	0.817	765.	0.575	643.	0.483	614.	0.461

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
37.	139	7.92	147.4	1331.	30.00	0.0	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	RHO-INF	PU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.3	0.0161	1.309	0.707	3850.	0.442E-03	0.254E-05	0.669E 06	20.32	0.0	0.90	22.58			
ZP1	PP1	PP1/PU1	ZP2	PP2	PP2/PU1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.053	1.348	1.030	1.103	4.544	3.473	0.054	1070.	0.804	766.	0.575	644.	0.484	615.	0.462
0.050	1.269	0.970	1.100	4.545	3.475	0.051	1053.	0.791	766.	0.576	645.	0.484	616.	0.463
0.047	1.198	0.915	1.097	4.548	3.475	0.048	1034.	0.777	767.	0.576	645.	0.485	617.	0.463
0.044	1.131	0.865	1.094	4.551	3.480	0.045	1016.	0.763	768.	0.577	645.	0.485	618.	0.464
0.041	1.069	0.818	1.091	4.558	3.488	0.042	996.	0.748	769.	0.578	646.	0.485	619.	0.465
0.036	1.009	0.772	1.086	4.558	3.488	0.037	972.	0.730	770.	0.578	647.	0.486	621.	0.466
0.034	0.951	0.728	1.084	4.561	3.493	0.035	952.	0.715	770.	0.579	647.	0.486	622.	0.468
0.031	0.898	0.687	1.081	4.559	3.491	0.032	934.	0.702	771.	0.579	648.	0.487	624.	0.469
0.028	0.850	0.651	1.078	4.562	3.491	0.029	915.	0.688	772.	0.580	648.	0.487	626.	0.470
0.025	0.807	0.618	1.075	4.567	3.497	0.026	894.	0.672	773.	0.581	649.	0.487	628.	0.471
0.021	0.766	0.587	1.071	4.570	3.499	0.022	873.	0.656	774.	0.581	649.	0.488	629.	0.473
0.018	0.730	0.559	1.068	4.574	3.505	0.019	852.	0.640	774.	0.582	650.	0.488	631.	0.474
0.014	0.696	0.533	1.064	4.576	3.507	0.015	831.	0.624	775.	0.582	650.	0.489	633.	0.475
0.011	0.664	0.509	1.061	4.577	3.507	0.012	812.	0.610	776.	0.583	651.	0.489	635.	0.477
0.008	0.637	0.489	1.058	4.579	3.511	0.009	783.	0.589	777.	0.583	651.	0.489	636.	0.478
0.007	0.613	0.470	1.057	4.578	3.510	0.008	744.	0.559	777.	0.584	652.	0.490	638.	0.479
0.007	0.583	0.447	1.057	4.579	3.511	0.008	724.	0.544	778.	0.585	652.	0.490	639.	0.480

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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG W)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
38.	139	7.92	152.4	1332.	29.99	0.01	30.00	180.00	0					
T-INF	P-INF	PO1	O-INF	U-INF	MHO-INF	ML-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)	(IN)	(IN)			
98.3	0.0167	1.354	0.732	3851.	0.457E-03	0.255E-05	0.692E 06	18.06	0.0	0.80	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	TT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
---	---	---	2.346	1.202	0.888	1.347	1268.	0.952	553.	0.415	547.	0.411	555.	0.417
---	---	---	2.379	1.199	0.887	1.330	1269.	0.953	556.	0.417	549.	0.412	555.	0.417
1.320	4.476	3.330	2.370	1.194	0.889	1.321	1268.	0.952	583.	0.438	560.	0.421	560.	0.420
1.287	4.478	3.329	2.337	1.192	0.887	1.288	1269.	0.952	586.	0.440	561.	0.421	560.	0.421
1.254	4.483	3.335	2.304	1.193	0.888	1.255	1269.	0.953	589.	0.442	562.	0.422	561.	0.421
1.220	4.486	3.339	2.270	1.193	0.888	1.221	1269.	0.953	592.	0.444	563.	0.423	561.	0.422
1.187	4.495	3.347	2.237	1.192	0.888	1.188	1269.	0.953	594.	0.446	564.	0.424	562.	0.422
1.153	4.504	3.359	2.203	1.191	0.888	1.154	1269.	0.953	597.	0.448	565.	0.424	562.	0.422
1.118	4.530	3.375	2.168	1.191	0.888	1.119	1269.	0.953	600.	0.450	566.	0.425	562.	0.422
1.083	4.548	3.390	2.133	1.191	0.888	1.084	1269.	0.952	603.	0.452	567.	0.426	562.	0.422
1.049	4.558	3.398	2.099	1.190	0.887	1.050	1269.	0.952	605.	0.454	568.	0.427	563.	0.423
1.016	4.565	3.405	2.066	1.190	0.888	1.017	1269.	0.953	608.	0.456	569.	0.427	564.	0.423
0.982	4.570	3.411	2.032	1.190	0.889	0.983	1269.	0.953	610.	0.458	570.	0.428	565.	0.424
0.949	4.571	3.414	1.999	1.189	0.888	0.950	1268.	0.952	613.	0.460	571.	0.429	565.	0.425
0.915	4.569	3.416	1.965	1.186	0.886	0.916	1268.	0.952	615.	0.462	572.	0.429	566.	0.425
0.881	4.571	3.419	1.931	1.185	0.886	0.882	1269.	0.952	618.	0.464	573.	0.430	567.	0.426
0.846	4.582	3.424	1.896	1.184	0.886	0.847	1268.	0.952	620.	0.466	574.	0.431	568.	0.426
0.812	4.599	3.444	1.862	1.186	0.889	0.813	1268.	0.952	623.	0.467	575.	0.431	568.	0.427
0.778	4.620	3.460	1.828	1.187	0.889	0.779	1268.	0.952	625.	0.469	576.	0.432	569.	0.427
0.744	4.644	3.481	1.794	1.184	0.888	0.745	1268.	0.952	627.	0.471	576.	0.433	569.	0.428
0.707	4.669	3.502	1.757	1.184	0.888	0.708	1268.	0.952	630.	0.473	577.	0.433	570.	0.428
0.675	4.690	3.520	1.725	1.184	0.888	0.676	1267.	0.952	632.	0.475	578.	0.434	571.	0.428
0.638	4.702	3.531	1.688	1.183	0.889	0.639	1268.	0.952	634.	0.476	579.	0.435	571.	0.429
0.606	4.712	3.541	1.656	1.182	0.889	0.607	1267.	0.951	637.	0.478	580.	0.435	571.	0.429
0.572	4.720	3.549	1.622	1.183	0.890	0.573	1267.	0.951	639.	0.480	581.	0.436	572.	0.429
0.537	4.733	3.561	1.587	1.181	0.889	0.538	1268.	0.952	641.	0.481	582.	0.437	572.	0.429
0.503	4.762	3.586	1.553	1.181	0.890	0.504	1267.	0.951	643.	0.483	582.	0.437	572.	0.429
0.468	4.801	3.615	1.518	1.181	0.889	0.469	1267.	0.951	645.	0.484	583.	0.438	572.	0.429
0.434	4.842	3.646	1.484	1.199	0.903	0.435	1267.	0.952	647.	0.486	584.	0.439	572.	0.429
0.400	4.868	3.666	1.450	1.316	0.991	0.401	1268.	0.952	649.	0.487	585.	0.439	572.	0.429
0.365	4.865	3.661	1.415	2.245	1.689	0.366	1269.	0.952	651.	0.489	586.	0.440	573.	0.430
0.332	4.799	3.609	1.382	4.140	3.113	0.333	1269.	0.953	653.	0.491	587.	0.440	573.	0.430
0.324	4.773	3.587	1.374	4.396	3.303	0.325	1270.	0.953	655.	0.493	588.	0.442	574.	0.431
0.316	4.752	3.571	1.366	4.477	3.364	0.317	1270.	0.953	659.	0.495	589.	0.442	575.	0.431
0.307	4.730	3.552	1.357	4.471	3.358	0.308	1270.	0.954	661.	0.496	589.	0.443	575.	0.432
0.299	4.706	3.534	1.349	4.471	3.358	0.300	1271.	0.954	663.	0.498	590.	0.443	576.	0.432
0.296	4.685	3.518	1.346	4.469	3.356	0.297	1270.	0.954	665.	0.499	591.	0.444	576.	0.432
0.292	4.672	3.509	1.342	4.474	3.360	0.293	1271.	0.954	667.	0.500	592.	0.444	576.	0.433
0.289	4.660	3.500	1.339	4.475	3.361	0.290	1271.	0.954	668.	0.502	593.	0.445	577.	0.433
0.286	4.648	3.490	1.336	4.476	3.361	0.287	1271.	0.954	670.	0.503	594.	0.446	577.	0.433
0.283	4.636	3.481	1.333	4.475	3.361	0.284	1271.	0.954	672.	0.505	594.	0.446	578.	0.434

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GROUP	MODEL	MACH NO	PC(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
38.	139	7.42	150.0	1332.	30.01	-0.01	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	HMO-INF (LBM/FT3)	MO-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.3	0.0164	1.333	0.720	3851.	0.450E-03	0.255E-05	0.681E 06	18.06	0.0	0.80	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/PC1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.280	4.626	3.472	1.330	4.479	3.361	0.281	1271.	0.954	674.	0.506	595.	0.447	578.	0.434
0.277	4.613	3.462	1.327	4.477	3.360	0.278	1271.	0.954	675.	0.507	596.	0.447	579.	0.434
0.274	4.604	3.455	1.324	4.476	3.359	0.275	1271.	0.954	677.	0.508	596.	0.448	579.	0.435
0.272	4.593	3.447	1.322	4.478	3.361	0.273	1270.	0.954	679.	0.510	597.	0.448	580.	0.435
0.268	4.581	3.438	1.318	4.479	3.361	0.269	1271.	0.954	681.	0.511	598.	0.449	580.	0.436
0.265	4.567	3.430	1.315	4.475	3.361	0.266	1271.	0.954	682.	0.512	599.	0.450	581.	0.436
0.261	4.553	3.419	1.311	4.479	3.364	0.262	1271.	0.955	684.	0.513	600.	0.450	581.	0.436
0.258	4.542	3.411	1.308	4.479	3.364	0.259	1272.	0.955	685.	0.515	600.	0.451	582.	0.437
0.256	4.530	3.404	1.306	4.479	3.366	0.257	1272.	0.955	687.	0.516	601.	0.451	582.	0.437
0.253	4.519	3.396	1.303	4.476	3.364	0.254	1272.	0.955	688.	0.517	601.	0.451	583.	0.437
0.250	4.504	3.387	1.300	4.474	3.364	0.251	1272.	0.955	690.	0.518	602.	0.452	583.	0.438
0.247	4.492	3.376	1.297	4.478	3.365	0.248	1272.	0.955	692.	0.519	603.	0.453	583.	0.438
0.245	4.480	3.369	1.295	4.478	3.367	0.246	1272.	0.955	693.	0.520	603.	0.453	584.	0.438
0.243	4.467	3.359	1.293	4.475	3.365	0.244	1272.	0.955	695.	0.521	604.	0.454	584.	0.439
0.240	4.456	3.353	1.290	4.476	3.368	0.241	1272.	0.955	696.	0.523	605.	0.454	585.	0.439
0.237	4.445	3.345	1.287	4.474	3.367	0.238	1273.	0.956	698.	0.524	606.	0.455	585.	0.439
0.234	4.433	3.336	1.284	4.475	3.367	0.235	1272.	0.955	699.	0.525	606.	0.455	586.	0.440
0.232	4.419	3.327	1.282	4.471	3.366	0.233	1272.	0.955	700.	0.526	607.	0.456	586.	0.440
0.229	4.406	3.320	1.279	4.471	3.369	0.230	1272.	0.955	702.	0.527	608.	0.456	587.	0.440
0.226	4.393	3.310	1.276	4.469	3.367	0.227	1272.	0.955	703.	0.528	608.	0.457	587.	0.441
0.223	4.380	3.302	1.273	4.466	3.367	0.224	1273.	0.956	705.	0.529	609.	0.457	588.	0.441
0.221	4.366	3.290	1.271	4.468	3.366	0.222	1273.	0.956	706.	0.530	610.	0.458	588.	0.441
0.218	4.352	3.281	1.268	4.463	3.365	0.219	1273.	0.956	707.	0.531	610.	0.458	589.	0.442
0.216	4.341	3.275	1.266	4.465	3.369	0.217	1273.	0.956	709.	0.532	611.	0.459	589.	0.442
0.213	4.329	3.270	1.263	4.467	3.375	0.214	1273.	0.956	710.	0.533	612.	0.459	589.	0.442
0.210	4.315	3.260	1.260	4.460	3.369	0.211	1273.	0.956	711.	0.534	612.	0.460	590.	0.443
0.207	4.300	3.251	1.257	4.462	3.373	0.208	1273.	0.956	713.	0.535	613.	0.460	590.	0.443
0.204	4.285	3.245	1.254	4.459	3.371	0.205	1274.	0.956	714.	0.536	614.	0.461	591.	0.443
0.202	4.270	3.236	1.252	4.460	3.374	0.203	1274.	0.956	715.	0.537	614.	0.461	591.	0.444
0.199	4.255	3.222	1.249	4.456	3.373	0.200	1274.	0.956	716.	0.538	615.	0.462	592.	0.444
0.196	4.242	3.211	1.246	4.453	3.371	0.197	1274.	0.956	718.	0.539	615.	0.462	592.	0.444
0.193	4.224	3.200	1.243	4.452	3.372	0.194	1274.	0.957	719.	0.540	616.	0.463	592.	0.445
0.190	4.209	3.189	1.240	4.450	3.371	0.191	1274.	0.957	720.	0.541	617.	0.463	593.	0.445
0.187	4.193	3.176	1.237	4.449	3.372	0.188	1275.	0.957	721.	0.542	617.	0.463	593.	0.445
0.184	4.175	3.167	1.234	4.443	3.370	0.185	1275.	0.957	723.	0.542	618.	0.464	594.	0.446
0.181	4.161	3.156	1.231	4.447	3.374	0.182	1274.	0.957	724.	0.543	619.	0.464	594.	0.446
0.178	4.145	3.142	1.228	4.450	3.373	0.179	1275.	0.958	725.	0.544	619.	0.465	594.	0.446
0.176	4.130	3.132	1.226	4.451	3.376	0.177	1276.	0.958	726.	0.545	620.	0.465	595.	0.447
0.173	4.115	3.121	1.223	4.451	3.376	0.174	1276.	0.958	727.	0.546	620.	0.466	595.	0.447
0.170	4.100	3.108	1.220	4.454	3.376	0.171	1276.	0.958	728.	0.547	621.	0.466	596.	0.447
0.168	4.086	3.097	1.218	4.453	3.375	0.169	1276.	0.958	730.	0.548	622.	0.467	596.	0.448
0.165	4.072	3.086	1.215	4.454	3.376	0.166	1276.	0.958	731.	0.549	622.	0.467	597.	0.448

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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
38.	139	7.92	148.6	1332.	30.01	-0.01	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.3	0.0162	1.319	0.713	3851.	0.445E-03	0.255E-05	0.674E 06	18.06	0.0	0.80	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.163	4.055	3.073	1.213	4.456	3.378	0.164	1276.	0.958	732.	0.549	623.	0.468	597.	0.448
0.160	4.042	3.062	1.210	4.457	3.376	0.161	1277.	0.959	733.	0.550	624.	0.468	597.	0.449
0.157	4.026	3.049	1.207	4.453	3.373	0.158	1276.	0.958	734.	0.551	624.	0.469	598.	0.449
0.155	4.007	3.035	1.205	4.454	3.374	0.156	1277.	0.958	735.	0.552	625.	0.469	598.	0.449
0.152	3.988	3.021	1.202	4.459	3.378	0.153	1277.	0.959	736.	0.553	625.	0.470	599.	0.449
0.149	3.966	3.005	1.199	4.461	3.379	0.150	1277.	0.959	737.	0.553	626.	0.470	599.	0.450
0.146	3.944	2.991	1.196	4.461	3.380	0.147	1277.	0.959	738.	0.554	627.	0.470	599.	0.450
0.143	3.924	2.975	1.193	4.462	3.382	0.144	1278.	0.959	739.	0.555	627.	0.471	600.	0.450
0.140	3.894	2.956	1.190	4.463	3.383	0.141	1278.	0.959	740.	0.556	628.	0.471	600.	0.451
0.137	3.869	2.933	1.187	4.460	3.381	0.138	1278.	0.960	741.	0.557	629.	0.472	601.	0.451
0.134	3.840	2.911	1.184	4.463	3.383	0.135	1279.	0.960	742.	0.557	629.	0.472	601.	0.451
0.130	3.813	2.890	1.180	4.468	3.387	0.131	1279.	0.960	743.	0.558	629.	0.473	602.	0.452
0.129	3.785	2.869	1.179	4.468	3.387	0.130	1279.	0.960	744.	0.559	630.	0.473	602.	0.452
0.126	3.753	2.845	1.176	4.468	3.387	0.127	1279.	0.960	745.	0.560	631.	0.473	602.	0.452
0.123	3.714	2.819	1.173	4.470	3.389	0.124	1279.	0.960	746.	0.560	631.	0.474	603.	0.452
0.119	3.678	2.788	1.169	4.475	3.392	0.120	1279.	0.960	747.	0.561	632.	0.474	603.	0.453
0.115	3.634	2.754	1.165	4.474	3.392	0.116	1280.	0.961	748.	0.562	632.	0.475	604.	0.453
0.112	3.582	2.719	1.162	4.475	3.397	0.113	1280.	0.961	749.	0.563	633.	0.475	604.	0.453
0.110	3.532	2.681	1.160	4.484	3.404	0.111	1279.	0.960	750.	0.563	634.	0.476	604.	0.454
0.106	3.474	2.637	1.156	4.485	3.404	0.107	1279.	0.960	751.	0.564	634.	0.476	605.	0.454
0.103	3.416	2.591	1.153	4.485	3.402	0.104	1279.	0.960	752.	0.565	635.	0.477	605.	0.454
0.100	3.354	2.545	1.150	4.489	3.408	0.101	1279.	0.960	753.	0.565	635.	0.477	606.	0.455
0.097	3.285	2.492	1.147	4.493	3.408	0.098	1277.	0.959	754.	0.566	636.	0.477	606.	0.455
0.094	3.207	2.433	1.144	4.493	3.409	0.095	1275.	0.957	755.	0.567	636.	0.478	607.	0.455
0.090	3.123	2.369	1.140	4.494	3.409	0.091	1273.	0.956	756.	0.568	637.	0.478	607.	0.456
0.087	3.031	2.299	1.137	4.499	3.412	0.088	1270.	0.953	757.	0.568	637.	0.478	608.	0.456
0.084	2.930	2.224	1.134	4.498	3.414	0.085	1266.	0.951	758.	0.569	638.	0.479	609.	0.457
0.081	2.825	2.143	1.131	4.499	3.413	0.082	1260.	0.946	759.	0.570	638.	0.479	609.	0.457
0.077	2.709	2.054	1.127	4.502	3.415	0.078	1253.	0.940	760.	0.570	639.	0.480	610.	0.458
0.074	2.581	1.959	1.124	4.504	3.418	0.075	1244.	0.934	760.	0.571	640.	0.480	611.	0.459
0.071	2.452	1.861	1.121	4.504	3.418	0.072	1232.	0.925	761.	0.572	640.	0.481	612.	0.459
0.068	2.317	1.760	1.118	4.506	3.422	0.069	1219.	0.915	762.	0.572	641.	0.481	613.	0.460
0.064	2.177	1.653	1.114	4.506	3.422	0.065	1203.	0.903	763.	0.573	641.	0.481	614.	0.461
0.061	2.042	1.550	1.111	4.510	3.423	0.062	1186.	0.891	764.	0.574	642.	0.482	615.	0.461
0.058	1.908	1.450	1.108	4.509	3.425	0.059	1168.	0.877	765.	0.574	642.	0.482	615.	0.462
0.055	1.776	1.351	1.105	4.512	3.427	0.056	1146.	0.861	766.	0.575	643.	0.483	616.	0.462
0.051	1.654	1.256	1.101	4.510	3.426	0.052	1127.	0.846	766.	0.575	643.	0.483	616.	0.463
0.048	1.537	1.167	1.098	4.509	3.425	0.049	1105.	0.829	767.	0.576	644.	0.483	617.	0.463
0.044	1.425	1.083	1.094	4.509	3.425	0.045	1083.	0.813	768.	0.577	645.	0.484	618.	0.464
0.041	1.324	1.007	1.091	4.509	3.427	0.042	1059.	0.795	769.	0.577	645.	0.484	618.	0.464
0.037	1.231	0.935	1.087	4.513	3.428	0.038	1032.	0.775	770.	0.578	646.	0.485	619.	0.465
0.034	1.143	0.870	1.084	4.510	3.433	0.035	1007.	0.756	771.	0.578	646.	0.485	620.	0.465

ORIGINAL PAGE IS  
OF POOR QUALITY

DATE = 9-20-73  
PROJECT NUMBER VA35J-21BA  
ARO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/RI, OM9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
38.	139	7.92	148.1	1332.	30.01	-0.01	30.00	180.00	0					
Y-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	MMU-INF (LBM/FT3)	MMU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.3	0.0162	1.315	0.711	3851.	0.444E-03	0.255E-05	0.672E 06	18.06	0.0	0.80	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.031	1.066	0.811	1.081	4.513	3.433	0.032	982.	0.737	771.	0.579	647.	0.486	620.	0.466
0.028	0.997	0.758	1.078	4.514	3.433	0.029	957.	0.719	772.	0.580	647.	0.486	621.	0.466
0.024	0.938	0.713	1.074	4.518	3.436	0.025	934.	0.701	773.	0.580	648.	0.486	622.	0.467
0.021	0.882	0.671	1.071	4.518	3.436	0.022	909.	0.682	774.	0.581	648.	0.487	623.	0.468
0.018	0.832	0.633	1.068	4.521	3.438	0.019	885.	0.664	774.	0.581	649.	0.487	624.	0.468
0.014	0.793	0.601	1.064	4.521	3.438	0.015	860.	0.645	775.	0.582	649.	0.487	625.	0.469
0.010	0.751	0.571	1.060	4.520	3.438	0.011	828.	0.622	776.	0.583	650.	0.488	626.	0.470
0.007	0.590	0.448	1.057	4.522	3.437	0.008	781.	0.587	781.	0.587	654.	0.491	631.	0.474

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 DATE = 9-20-73  
 PROJECT NUMBER VA353-21BA  
 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/RI OH9 SHUTTLE TEST  
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GROUP 39.	MODEL 139	MACH NO 7.92	PO(PSIA) 151.6.	TO(DEG R) 1333.	ALPHA-MODEL 30.00	ALPHA-SECTOR 0.0	ALPHA-PREBEND 30.00	ROLL-MODEL 180.00	YAW 0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	HMO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.4	0.0166	1.347	0.728	3853.	0.454E-03	0.255E-05	0.687E 06	15.81	0.0	0.70	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1 (IN)	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
			2.308	1.014	0.753	1.339	1271.	0.953	540.	0.405	541.	0.406	553.	0.415
			2.307	1.190	0.887	1.338	1270.	0.952	559.	0.420	551.	0.413	556.	0.417
			2.375	1.190	0.887	1.326	1271.	0.953	562.	0.422	552.	0.414	556.	0.417
1.240	2.086	1.557	2.290	1.186	0.886	1.241	1271.	0.954	573.	0.430	557.	0.418	558.	0.418
1.206	3.173	2.372	2.256	1.185	0.886	1.207	1270.	0.953	576.	0.432	558.	0.419	558.	0.419
1.178	3.622	2.859	2.228	1.185	0.887	1.179	1271.	0.953	579.	0.434	559.	0.419	558.	0.419
1.169	4.447	3.344	2.219	1.178	0.886	1.170	1270.	0.953	603.	0.452	568.	0.426	562.	0.422
1.136	4.455	3.350	2.166	1.176	0.885	1.137	1271.	0.953	605.	0.454	569.	0.427	563.	0.422
1.100	4.473	3.363	2.150	1.178	0.886	1.101	1271.	0.953	608.	0.456	570.	0.428	564.	0.423
1.066	4.489	3.376	2.116	1.177	0.886	1.067	1271.	0.953	610.	0.458	571.	0.428	564.	0.423
1.032	4.495	3.382	2.082	1.174	0.884	1.033	1271.	0.953	613.	0.460	572.	0.429	565.	0.424
1.000	4.502	3.392	2.050	1.174	0.885	1.001	1271.	0.953	616.	0.462	573.	0.430	566.	0.425
0.965	4.511	3.399	2.015	1.174	0.885	0.966	1271.	0.953	618.	0.464	574.	0.431	567.	0.426
0.932	4.528	3.412	1.982	1.174	0.885	0.933	1271.	0.953	620.	0.465	575.	0.431	569.	0.427
0.898	4.555	3.432	1.948	1.173	0.884	0.899	1271.	0.953	623.	0.467	576.	0.432	571.	0.428
0.864	4.582	3.455	1.914	1.171	0.883	0.865	1271.	0.953	625.	0.469	577.	0.433	572.	0.429
0.829	4.609	3.475	1.879	1.170	0.882	0.830	1271.	0.953	628.	0.471	578.	0.433	573.	0.430
0.795	4.638	3.499	1.845	1.171	0.884	0.796	1270.	0.953	630.	0.473	578.	0.434	574.	0.431
0.761	4.664	3.521	1.811	1.171	0.884	0.762	1270.	0.953	632.	0.474	579.	0.435	575.	0.431
0.724	4.679	3.533	1.774	1.168	0.882	0.725	1270.	0.953	634.	0.476	580.	0.435	576.	0.432
0.692	4.687	3.541	1.742	1.168	0.883	0.693	1270.	0.953	637.	0.478	581.	0.436	577.	0.433
0.658	4.692	3.545	1.708	1.168	0.883	0.659	1270.	0.953	639.	0.479	582.	0.436	578.	0.434
0.624	4.695	3.552	1.674	1.166	0.882	0.625	1270.	0.952	641.	0.481	583.	0.437	580.	0.435
0.590	4.708	3.562	1.640	1.166	0.882	0.591	1270.	0.953	643.	0.483	584.	0.438	581.	0.436
0.554	4.736	3.588	1.604	1.166	0.884	0.555	1269.	0.952	645.	0.484	584.	0.438	583.	0.437
0.522	4.773	3.616	1.572	1.164	0.882	0.523	1269.	0.952	647.	0.486	585.	0.439	584.	0.438
0.488	4.801	3.639	1.538	1.164	0.883	0.489	1269.	0.952	649.	0.487	586.	0.440	585.	0.439
0.454	4.811	3.649	1.504	1.162	0.882	0.455	1270.	0.953	652.	0.489	587.	0.440	586.	0.440
0.420	4.798	3.640	1.470	1.165	0.884	0.421	1270.	0.953	654.	0.490	588.	0.441	587.	0.440
0.386	4.759	3.610	1.436	1.164	0.883	0.387	1270.	0.953	655.	0.492	588.	0.441	588.	0.441
			1.402	1.167	0.885	0.353	1270.	0.953	657.	0.493	589.	0.442	589.	0.442
			1.381	1.165	0.884	0.332	1271.	0.954	659.	0.495	590.	0.443	590.	0.443
			1.373	1.165	0.884	0.324	1272.	0.954	661.	0.496	591.	0.443	591.	0.444
			1.367	1.166	0.885	0.318	1272.	0.954	663.	0.497	591.	0.444	592.	0.444
0.314	4.503	3.419	1.304	1.167	0.885	0.315	1272.	0.954	665.	0.499	592.	0.444	593.	0.445
0.310	4.491	3.409	1.300	1.166	0.885	0.311	1272.	0.954	667.	0.500	593.	0.445	594.	0.445
0.308	4.478	3.399	1.358	1.166	0.885	0.309	1272.	0.954	669.	0.502	594.	0.446	594.	0.446
0.306	4.468	3.389	1.356	1.166	0.885	0.307	1272.	0.954	670.	0.503	595.	0.446	595.	0.447
0.303	4.458	3.384	1.353	1.166	0.885	0.304	1272.	0.955	672.	0.504	595.	0.447	596.	0.447
0.300	4.449	3.377	1.350	1.165	0.885	0.301	1272.	0.955	674.	0.506	596.	0.447	597.	0.448
0.296	4.437	3.370	1.346	1.166	0.886	0.297	1272.	0.954	676.	0.507	597.	0.448	598.	0.448
0.293	4.423	3.359	1.343	1.165	0.885	0.294	1272.	0.954	677.	0.508	598.	0.448	598.	0.449



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OF POOR QUALITY

DATE = 9-20-73  
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AKU, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/RI OH9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
39.	139	7.92	148.2	1333.	30.05	-0.05	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	O-INF (PSIA)	U-INF (FT/SEC)	HMO-INF (LBM/FT3)	MO-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.4	0.0162	1.316	0.711	3853.	0.444E-03	0.255E-05	0.671E 06	15.81	0.0	0.70	22.58			
ZP1 (IN)	PF1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
0.290	4.411	3.353	1.340	1.167	0.887	0.291	1273.	0.955	679.	0.509	598.	0.449	599.	0.450
0.287	4.398	3.343	1.337	1.167	0.887	0.288	1272.	0.955	681.	0.511	599.	0.449	600.	0.450
0.284	4.384	3.337	1.334	1.169	0.890	0.285	1272.	0.954	682.	0.512	600.	0.450	601.	0.451
0.281	4.372	3.326	1.331	1.173	0.893	0.282	1273.	0.955	684.	0.513	601.	0.450	602.	0.451
0.278	4.358	3.315	1.328	1.175	0.895	0.279	1273.	0.955	685.	0.514	601.	0.451	603.	0.452
0.274	4.345	3.309	1.324	1.180	0.899	0.275	1273.	0.955	687.	0.515	602.	0.451	603.	0.453
0.272	4.333	3.300	1.322	1.185	0.903	0.273	1273.	0.955	689.	0.517	602.	0.452	604.	0.453
0.269	4.320	3.292	1.319	1.192	0.909	0.270	1273.	0.955	690.	0.518	603.	0.453	605.	0.454
0.265	4.307	3.283	1.315	1.201	0.915	0.266	1273.	0.955	692.	0.519	604.	0.453	606.	0.455
0.262	4.294	3.272	1.312	1.208	0.921	0.263	1273.	0.955	693.	0.520	605.	0.454	607.	0.455
0.259	4.282	3.263	1.309	1.215	0.926	0.260	1273.	0.955	695.	0.521	605.	0.454	608.	0.456
0.256	4.273	3.259	1.306	1.224	0.934	0.257	1274.	0.955	696.	0.522	606.	0.455	609.	0.457
0.253	4.262	3.248	1.303	1.235	0.942	0.254	1274.	0.955	698.	0.523	607.	0.455	610.	0.457
0.250	4.250	3.241	1.300	1.245	0.949	0.251	1274.	0.955	699.	0.524	607.	0.456	611.	0.458
0.247	4.241	3.232	1.297	1.257	0.958	0.248	1274.	0.955	700.	0.525	608.	0.456	612.	0.459
0.244	4.230	3.226	1.294	1.271	0.970	0.245	1274.	0.955	702.	0.527	609.	0.457	613.	0.460
0.242	4.218	3.214	1.292	1.286	0.980	0.243	1274.	0.956	703.	0.528	610.	0.457	614.	0.461
0.239	4.212	3.206	1.289	1.310	0.997	0.240	1275.	0.956	705.	0.529	610.	0.458	615.	0.461
0.236	4.204	3.199	1.286	1.341	1.020	0.237	1275.	0.956	706.	0.530	611.	0.458	616.	0.462
0.233	4.195	3.193	1.283	1.381	1.051	0.234	1274.	0.956	707.	0.531	611.	0.459	617.	0.463
0.231	4.187	3.184	1.281	1.438	1.094	0.232	1274.	0.956	709.	0.532	612.	0.459	618.	0.464
0.228	4.178	3.173	1.278	1.484	1.127	0.229	1274.	0.956	710.	0.533	613.	0.460	619.	0.464
0.225	4.170	3.167	1.275	1.576	1.197	0.226	1275.	0.957	711.	0.534	613.	0.460	620.	0.465
0.222	4.161	3.160	1.272	1.660	1.281	0.223	1275.	0.956	713.	0.535	614.	0.461	621.	0.466
0.220	4.152	3.149	1.270	1.767	1.340	0.221	1274.	0.956	714.	0.536	615.	0.461	622.	0.467
0.217	4.139	3.139	1.267	1.888	1.432	0.218	1275.	0.956	715.	0.537	615.	0.462	623.	0.468
0.215	4.130	3.135	1.265	1.938	1.471	0.216	1275.	0.956	717.	0.538	616.	0.462	624.	0.468
0.211	4.122	3.126	1.261	2.066	1.567	0.212	1275.	0.956	718.	0.538	617.	0.463	625.	0.469
0.208	4.113	3.119	1.258	2.194	1.664	0.209	1275.	0.957	719.	0.539	617.	0.463	626.	0.470
0.205	4.102	3.111	1.255	2.311	1.753	0.206	1275.	0.956	720.	0.540	618.	0.463	627.	0.471
0.202	4.090	3.100	1.252	2.459	1.854	0.203	1275.	0.957	722.	0.541	618.	0.464	628.	0.471
0.199	4.078	3.091	1.249	2.620	1.966	0.200	1276.	0.957	723.	0.542	619.	0.464	629.	0.472
0.196	4.065	3.081	1.246	2.766	2.096	0.197	1275.	0.957	724.	0.543	620.	0.465	630.	0.473
0.193	4.049	3.069	1.243	2.965	2.247	0.194	1276.	0.957	725.	0.544	620.	0.465	631.	0.474
0.190	4.036	3.059	1.240	3.164	2.398	0.191	1276.	0.957	726.	0.545	621.	0.466	633.	0.474
0.187	4.020	3.049	1.237	3.319	2.518	0.188	1276.	0.957	727.	0.546	621.	0.466	634.	0.475
0.184	4.007	3.037	1.234	3.450	2.638	0.185	1276.	0.958	729.	0.547	622.	0.467	635.	0.476
0.182	3.993	3.026	1.232	3.627	2.749	0.183	1277.	0.958	730.	0.547	623.	0.467	635.	0.477
0.179	3.979	3.016	1.229	3.800	2.881	0.180	1277.	0.958	731.	0.548	623.	0.468	636.	0.477
0.176	3.967	3.007	1.226	3.937	2.984	0.177	1277.	0.958	732.	0.549	624.	0.468	637.	0.478
0.174	3.953	2.999	1.224	4.065	3.084	0.175	1277.	0.958	733.	0.550	624.	0.468	638.	0.479
0.171	3.939	2.986	1.221	4.203	3.188	0.172	1277.	0.958	734.	0.551	625.	0.469	639.	0.480

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 AHO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/RI OH9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
39.	139	7.92	148.5	1333.	30.05	-0.05	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.4	0.0162	1.318	0.713	3853.	0.445E-03	0.255E-05	0.673E 06	15.81	0.0	0.70	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.169	3.924	2.977	1.219	4.293	3.258	0.170	1277.	0.958	735.	0.552	626.	0.470	640.	0.480
0.166	3.909	2.967	1.216	4.354	3.305	0.167	1278.	0.958	736.	0.552	626.	0.470	641.	0.481
0.163	3.893	2.955	1.213	4.403	3.342	0.164	1279.	0.959	737.	0.553	627.	0.470	642.	0.482
0.160	3.876	2.942	1.210	4.437	3.368	0.161	1279.	0.959	739.	0.554	627.	0.471	643.	0.482
0.157	3.859	2.929	1.207	4.467	3.375	0.158	1278.	0.959	740.	0.555	628.	0.471	644.	0.483
0.154	3.840	2.915	1.204	4.445	3.374	0.155	1278.	0.959	741.	0.556	629.	0.472	645.	0.484
0.151	3.823	2.904	1.201	4.441	3.373	0.152	1279.	0.959	742.	0.556	630.	0.472	646.	0.484
0.149	3.806	2.893	1.199	4.438	3.373	0.150	1279.	0.960	743.	0.557	630.	0.472	646.	0.485
0.146	3.789	2.878	1.196	4.440	3.372	0.147	1280.	0.960	744.	0.558	630.	0.473	647.	0.486
0.143	3.770	2.864	1.193	4.433	3.367	0.144	1279.	0.960	745.	0.559	631.	0.473	648.	0.486
0.140	3.749	2.850	1.190	4.435	3.371	0.141	1280.	0.960	746.	0.559	632.	0.474	649.	0.487
0.138	3.730	2.835	1.188	4.436	3.372	0.139	1280.	0.960	747.	0.560	632.	0.474	650.	0.488
0.135	3.706	2.817	1.185	4.432	3.369	0.136	1281.	0.961	748.	0.561	633.	0.475	651.	0.488
0.132	3.683	2.801	1.182	4.436	3.374	0.133	1281.	0.961	749.	0.562	633.	0.475	652.	0.489
0.129	3.656	2.781	1.179	4.433	3.372	0.130	1281.	0.961	750.	0.562	634.	0.475	653.	0.490
0.126	3.626	2.760	1.176	4.434	3.375	0.127	1282.	0.962	751.	0.563	635.	0.476	654.	0.490
0.123	3.599	2.738	1.173	4.434	3.372	0.124	1282.	0.962	752.	0.564	635.	0.476	654.	0.491
0.120	3.571	2.718	1.170	4.437	3.377	0.121	1282.	0.962	752.	0.565	636.	0.477	655.	0.491
0.118	3.543	2.696	1.168	4.436	3.377	0.119	1282.	0.962	753.	0.565	636.	0.477	656.	0.492
0.115	3.512	2.673	1.165	4.436	3.376	0.116	1282.	0.962	754.	0.566	637.	0.478	657.	0.493
0.113	3.482	2.652	1.163	4.435	3.374	0.114	1283.	0.962	755.	0.567	637.	0.478	658.	0.493
0.109	3.450	2.627	1.159	4.438	3.380	0.110	1283.	0.962	756.	0.567	638.	0.479	658.	0.494
0.106	3.413	2.601	1.156	4.435	3.380	0.107	1283.	0.962	757.	0.568	638.	0.479	659.	0.494
0.103	3.377	2.572	1.153	4.438	3.380	0.104	1283.	0.963	758.	0.569	639.	0.479	660.	0.495
0.101	3.338	2.544	1.151	4.436	3.381	0.102	1283.	0.962	759.	0.569	640.	0.480	661.	0.496
0.099	3.300	2.517	1.149	4.436	3.383	0.100	1283.	0.962	760.	0.570	640.	0.480	662.	0.496
0.096	3.260	2.486	1.146	4.439	3.385	0.097	1283.	0.962	761.	0.571	641.	0.481	662.	0.497
0.094	3.218	2.454	1.144	4.441	3.387	0.095	1283.	0.962	762.	0.571	641.	0.481	663.	0.498
0.091	3.173	2.420	1.141	4.444	3.389	0.092	1282.	0.962	762.	0.572	642.	0.481	664.	0.498
0.088	3.122	2.382	1.138	4.443	3.391	0.089	1281.	0.961	763.	0.573	642.	0.482	665.	0.499
0.085	3.068	2.343	1.135	4.440	3.391	0.086	1281.	0.961	764.	0.573	643.	0.482	666.	0.499
0.083	3.017	2.304	1.133	4.443	3.393	0.084	1280.	0.960	765.	0.574	644.	0.483	666.	0.500
0.080	2.960	2.259	1.130	4.441	3.389	0.081	1279.	0.959	766.	0.575	644.	0.483	667.	0.500
0.078	2.901	2.216	1.128	4.440	3.396	0.079	1278.	0.959	767.	0.575	644.	0.483	668.	0.501
0.075	2.835	2.166	1.125	4.445	3.397	0.076	1276.	0.957	768.	0.576	645.	0.484	669.	0.502
0.072	2.763	2.110	1.122	4.449	3.398	0.073	1273.	0.955	768.	0.576	646.	0.484	670.	0.502
0.069	2.682	2.050	1.119	4.446	3.398	0.070	1269.	0.952	769.	0.577	646.	0.485	670.	0.503
0.066	2.591	1.980	1.116	4.448	3.399	0.067	1264.	0.948	770.	0.578	646.	0.485	671.	0.504
0.062	2.492	1.905	1.112	4.450	3.401	0.063	1256.	0.942	771.	0.578	647.	0.486	672.	0.504
0.060	2.377	1.818	1.110	4.452	3.405	0.061	1246.	0.935	772.	0.579	648.	0.486	673.	0.505
0.056	2.257	1.728	1.106	4.455	3.407	0.057	1236.	0.927	772.	0.579	648.	0.486	674.	0.505
0.053	2.138	1.635	1.103	4.453	3.405	0.054	1225.	0.919	773.	0.580	649.	0.487	675.	0.506

ORIGINAL PAGE IS  
OF POOR QUALITY

DATE = 9-20-73  
PROJECT NUMBER VA353-21BA  
ARCO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/RI OHV SHUTTLE TEST  
PAGE = 4

GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
39.	139	7.92	147.2	1333.	30.05	-0.05	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	O-INF (PSIA)	U-INF (FT/SEC)	MHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.4	0.0161	1.307	0.706	3853.	0.441E-03	0.255E-05	0.667E 06	15.81	0.0	0.70	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
0.051	2.027	1.551	1.101	4.456	3.410	0.052	1214.	0.911	774.	0.581	649.	0.487	676.	0.507
0.048	1.920	1.409	1.098	4.454	3.408	0.049	1202.	0.902	775.	0.581	650.	0.487	676.	0.507
0.046	1.812	1.365	1.096	4.456	3.408	0.047	1186.	0.890	776.	0.582	650.	0.488	677.	0.508
0.044	1.709	1.307	1.094	4.459	3.410	0.045	1172.	0.879	776.	0.582	651.	0.488	678.	0.509
0.040	1.610	1.231	1.090	4.461	3.412	0.041	1155.	0.866	777.	0.583	651.	0.489	679.	0.510
0.038	1.512	1.157	1.088	4.463	3.415	0.039	1138.	0.854	778.	0.584	652.	0.489	680.	0.510
0.035	1.418	1.085	1.085	4.464	3.414	0.036	1120.	0.841	779.	0.584	652.	0.489	681.	0.511
0.033	1.326	1.014	1.083	4.465	3.414	0.034	1101.	0.826	779.	0.585	653.	0.490	682.	0.512
0.030	1.245	0.952	1.080	4.469	3.418	0.031	1083.	0.812	780.	0.585	653.	0.490	683.	0.512
0.028	1.166	0.892	1.076	4.471	3.419	0.029	1062.	0.797	781.	0.586	654.	0.490	684.	0.513
0.025	1.092	0.835	1.075	4.468	3.414	0.026	1040.	0.780	782.	0.586	654.	0.491	685.	0.514
0.022	1.024	0.783	1.072	4.474	3.421	0.023	1017.	0.763	782.	0.587	655.	0.491	686.	0.515
0.019	0.964	0.737	1.069	4.473	3.418	0.020	995.	0.746	783.	0.587	655.	0.492	687.	0.515
0.016	0.910	0.696	1.066	4.477	3.424	0.017	971.	0.728	784.	0.588	656.	0.492	687.	0.516
0.013	0.856	0.654	1.063	4.472	3.417	0.014	949.	0.712	784.	0.589	656.	0.492	688.	0.516
0.010	0.810	0.619	1.060	4.475	3.420	0.011	927.	0.695	785.	0.589	657.	0.493	689.	0.517
0.007	0.770	0.588	1.057	4.477	3.421	0.008	862.	0.646	786.	0.590	657.	0.493	690.	0.517
0.007	0.717	0.548	1.057	4.473	3.418	0.008	853.	0.640	787.	0.590	658.	0.494	691.	0.518

DATE = 9-20-73  
 PROJECT NUMBER VA353-21bA  
 ARO, INC.  
 ARNOLD-AIR FORCE STATION, TENN.  
 NASA/RI OH9 SHUTTLE TEST  
 PAGE = 1

GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
40.	139	1.92	150.3	1335.	35.03	-5.03	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	HMU-INF (LBM/FT3)	HU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.6	0.0164	1.335	0.722	3856.	0.450E-03	0.255E-05	0.680E 06	22.58	0.0	1.00	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	T=1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
			2.370	1.177	0.882	1.321	1282.	0.961	507.	0.379	545.	0.408	557.	0.417
			2.367	1.179	0.884	1.318	1283.	0.961	510.	0.382	547.	0.409	557.	0.417
1.313	4.021	3.037	2.363	1.167	0.882	1.314	1282.	0.960	542.	0.406	559.	0.419	563.	0.421
1.278	4.015	3.035	2.328	1.169	0.884	1.279	1282.	0.961	545.	0.408	560.	0.420	563.	0.422
1.243	4.000	3.026	2.293	1.168	0.883	1.244	1282.	0.960	548.	0.411	562.	0.421	564.	0.422
1.208	3.981	3.014	2.258	1.165	0.882	1.209	1282.	0.960	552.	0.413	563.	0.422	564.	0.423
1.172	3.962	3.004	2.222	1.179	0.894	1.173	1282.	0.960	555.	0.416	564.	0.422	565.	0.423
1.137	3.949	2.995	2.187	1.296	0.983	1.138	1281.	0.960	558.	0.418	565.	0.423	565.	0.423
1.102	3.932	2.981	2.152	2.096	1.589	1.103	1281.	0.960	561.	0.420	566.	0.424	566.	0.424
1.065	3.923	2.972	2.115	3.605	2.731	1.066	1281.	0.960	564.	0.423	567.	0.425	566.	0.424
1.029	3.912	2.961	2.079	3.978	3.011	1.030	1281.	0.960	567.	0.425	568.	0.425	567.	0.424
0.995	3.900	2.952	2.045	4.019	3.042	0.996	1281.	0.959	570.	0.427	569.	0.426	567.	0.425
0.961	3.888	2.941	2.011	4.072	3.080	0.962	1281.	0.960	573.	0.429	570.	0.427	568.	0.425
0.926	3.875	2.930	1.976	4.125	3.119	0.927	1281.	0.959	576.	0.432	571.	0.428	568.	0.426
0.892	3.865	2.923	1.942	4.179	3.159	0.893	1280.	0.959	579.	0.434	572.	0.429	569.	0.426
0.856	3.857	2.914	1.906	4.227	3.194	0.857	1280.	0.959	582.	0.436	573.	0.429	569.	0.426
0.820	3.851	2.909	1.870	4.258	3.217	0.821	1280.	0.958	585.	0.438	574.	0.430	570.	0.427
0.785	3.848	2.907	1.835	4.277	3.231	0.786	1280.	0.959	588.	0.440	575.	0.431	570.	0.427
0.749	3.850	2.909	1.799	4.288	3.240	0.750	1279.	0.958	591.	0.442	576.	0.432	570.	0.427
0.714	3.849	2.906	1.764	4.285	3.235	0.715	1279.	0.958	593.	0.444	577.	0.432	571.	0.428
0.678	3.845	2.903	1.728	4.271	3.224	0.679	1279.	0.958	596.	0.446	578.	0.433	571.	0.428
0.643	3.844	2.902	1.693	4.262	3.218	0.644	1279.	0.958	599.	0.448	579.	0.434	572.	0.428
0.607	3.844	2.904	1.657	4.250	3.211	0.608	1278.	0.958	601.	0.450	580.	0.435	572.	0.429
0.571	3.844	2.904	1.621	4.239	3.203	0.572	1279.	0.958	604.	0.452	581.	0.435	573.	0.429
0.536	3.846	2.906	1.586	4.225	3.192	0.537	1278.	0.957	607.	0.454	582.	0.436	573.	0.429
0.500	3.847	2.906	1.550	4.205	3.177	0.501	1278.	0.957	609.	0.456	583.	0.437	574.	0.430
0.464	3.852	2.910	1.514	4.190	3.166	0.465	1279.	0.958	612.	0.458	584.	0.437	574.	0.430
0.429	3.853	2.911	1.479	4.165	3.147	0.430	1279.	0.958	614.	0.460	585.	0.438	575.	0.431
0.393	3.845	2.907	1.443	4.143	3.132	0.394	1280.	0.959	616.	0.462	586.	0.439	575.	0.431
0.358	3.826	2.892	1.408	4.120	3.115	0.359	1280.	0.959	619.	0.464	587.	0.439	576.	0.431
0.322	3.794	2.868	1.372	4.092	3.094	0.323	1281.	0.960	621.	0.465	588.	0.440	576.	0.432
			1.352	4.080	3.089	0.303	1283.	0.961	624.	0.467	588.	0.441	577.	0.432
			1.343	4.068	3.080	0.294	1283.	0.961	626.	0.469	589.	0.441	577.	0.432
			1.334	4.065	3.077	0.285	1283.	0.961	628.	0.471	590.	0.442	578.	0.433
			1.329	4.059	3.075	0.280	1283.	0.961	630.	0.472	591.	0.443	578.	0.433
0.276	3.648	2.763	1.326	4.054	3.071	0.277	1283.	0.961	633.	0.474	592.	0.443	579.	0.433
0.273	3.636	2.756	1.323	4.050	3.070	0.274	1283.	0.961	635.	0.476	593.	0.444	579.	0.434
0.271	3.622	2.748	1.321	4.045	3.069	0.272	1284.	0.962	637.	0.477	594.	0.445	579.	0.434
0.267	3.614	2.742	1.317	4.039	3.064	0.268	1283.	0.961	639.	0.479	594.	0.445	580.	0.434
0.264	3.606	2.737	1.314	4.039	3.066	0.265	1283.	0.961	641.	0.480	595.	0.446	580.	0.435
0.261	3.599	2.732	1.311	4.037	3.064	0.262	1284.	0.961	643.	0.482	596.	0.447	581.	0.435
0.258	3.589	2.726	1.308	4.034	3.064	0.259	1283.	0.961	645.	0.483	597.	0.447	581.	0.435

ORIGINAL PAGE IS  
OF POOR QUALITY.

DATE = 9-20-73  
PROJECT NUMBER --VA353-21BA--  
ARO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/RI OH9 SHUTTLE TEST  
PAGE = 2

GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
40.	139	7.92	148.2	1335.	35.03	-5.03	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L 1.00	L (IN)			
98.6	0.0162	1.316	0.711	3856.	0.443E-03	0.255E-05	0.670E 06	22.58	0.0		22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.255	3.579	2.720	1.305	4.027	3.001	0.256	1284.	0.961	647.	0.485	598.	0.448	582.	0.436
0.252	3.571	2.714	1.302	4.024	3.058	0.253	1284.	0.962	649.	0.486	598.	0.448	582.	0.436
0.248	3.559	2.711	1.298	4.017	3.060	0.249	1284.	0.962	651.	0.488	599.	0.449	583.	0.436
0.246	3.550	2.704	1.296	4.015	3.058	0.247	1284.	0.962	653.	0.489	600.	0.449	583.	0.437
0.242	3.541	2.695	1.292	4.013	3.054	0.243	1284.	0.962	655.	0.491	601.	0.450	584.	0.437
0.239	3.531	2.689	1.289	4.011	3.055	0.240	1284.	0.962	657.	0.492	602.	0.451	584.	0.437
0.236	3.521	2.683	1.286	4.009	3.055	0.237	1284.	0.962	659.	0.494	602.	0.451	584.	0.438
0.233	3.508	2.675	1.283	3.999	3.050	0.234	1284.	0.962	661.	0.495	603.	0.452	585.	0.438
0.230	3.498	2.669	1.280	3.999	3.052	0.231	1284.	0.962	663.	0.496	604.	0.452	585.	0.438
0.227	3.488	2.662	1.277	3.994	3.048	0.228	1284.	0.962	665.	0.498	605.	0.453	586.	0.439
0.224	3.479	2.657	1.274	3.990	3.047	0.225	1283.	0.961	666.	0.499	606.	0.454	586.	0.439
0.221	3.468	2.650	1.271	3.986	3.046	0.222	1283.	0.961	668.	0.501	606.	0.454	587.	0.439
0.220	3.457	2.642	1.270	3.983	3.044	0.221	1283.	0.961	670.	0.502	607.	0.455	587.	0.440
0.217	3.448	2.637	1.267	3.982	3.045	0.218	1283.	0.961	672.	0.503	608.	0.455	588.	0.440
0.214	3.439	2.632	1.264	3.977	3.044	0.215	1284.	0.961	673.	0.504	609.	0.456	588.	0.440
0.211	3.431	2.629	1.261	3.975	3.046	0.212	1284.	0.961	675.	0.506	609.	0.456	588.	0.441
0.208	3.422	2.622	1.258	3.973	3.044	0.209	1284.	0.962	677.	0.507	610.	0.457	589.	0.441
0.205	3.412	2.612	1.255	3.973	3.042	0.206	1284.	0.962	678.	0.508	611.	0.458	589.	0.441
0.203	3.403	2.604	1.253	3.974	3.041	0.204	1283.	0.961	680.	0.509	612.	0.458	590.	0.442
0.200	3.391	2.595	1.250	3.972	3.040	0.201	1284.	0.962	682.	0.511	612.	0.459	590.	0.442
0.197	3.385	2.588	1.247	3.974	3.039	0.198	1284.	0.961	683.	0.512	613.	0.459	591.	0.442
0.194	3.377	2.582	1.244	3.973	3.038	0.195	1283.	0.961	685.	0.513	614.	0.460	591.	0.443
0.191	3.364	2.571	1.241	3.970	3.034	0.192	1283.	0.961	687.	0.514	615.	0.460	591.	0.443
0.188	3.356	2.566	1.238	3.973	3.038	0.189	1283.	0.961	688.	0.515	615.	0.461	592.	0.443
0.185	3.345	2.556	1.235	3.971	3.034	0.186	1283.	0.961	690.	0.517	616.	0.461	592.	0.444
0.183	3.334	2.548	1.233	3.970	3.034	0.184	1283.	0.961	691.	0.518	617.	0.462	593.	0.444
0.180	3.323	2.540	1.230	3.970	3.034	0.181	1283.	0.961	693.	0.519	618.	0.463	593.	0.444
0.177	3.310	2.528	1.227	3.970	3.032	0.178	1283.	0.961	694.	0.520	618.	0.463	594.	0.445
0.173	3.297	2.518	1.223	3.970	3.032	0.174	1283.	0.961	696.	0.521	619.	0.464	594.	0.445
0.170	3.285	2.509	1.220	3.965	3.028	0.171	1282.	0.961	697.	0.522	620.	0.464	594.	0.445
0.168	3.271	2.498	1.218	3.967	3.029	0.169	1282.	0.960	699.	0.523	620.	0.465	595.	0.446
0.165	3.255	2.486	1.215	3.964	3.027	0.166	1282.	0.960	700.	0.524	621.	0.465	595.	0.446
0.163	3.239	2.474	1.213	3.965	3.028	0.164	1282.	0.960	701.	0.525	622.	0.466	596.	0.446
0.160	3.226	2.466	1.210	3.959	3.025	0.161	1282.	0.960	703.	0.526	622.	0.466	596.	0.446
0.157	3.210	2.453	1.207	3.963	3.028	0.158	1282.	0.960	704.	0.527	623.	0.467	596.	0.447
0.155	3.193	2.440	1.205	3.958	3.025	0.156	1281.	0.960	706.	0.529	624.	0.467	597.	0.447
0.152	3.174	2.427	1.202	3.956	3.025	0.153	1281.	0.959	707.	0.530	624.	0.468	597.	0.447
0.149	3.152	2.409	1.199	3.955	3.023	0.150	1281.	0.960	708.	0.531	625.	0.468	598.	0.448
0.147	3.133	2.396	1.197	3.951	3.021	0.148	1280.	0.959	710.	0.532	626.	0.469	598.	0.448
0.144	3.112	2.380	1.194	3.951	3.021	0.145	1280.	0.959	711.	0.533	627.	0.469	598.	0.448
0.142	3.091	2.364	1.192	3.948	3.019	0.143	1279.	0.958	712.	0.534	627.	0.470	599.	0.449
0.140	3.070	2.348	1.190	3.946	3.017	0.141	1279.	0.958	714.	0.535	628.	0.470	599.	0.449

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
40.	139	7.92	147.2	1335.	35.03	-5.03	30.00	180.00	0
T-INF	P-INF	PO1	U-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)
98.6	0.0161	1.307	0.706	3856.	0.440E-03	0.255E-05	0.665E 06	22.58	0.0
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)	(DEG R)	(DEG R)
0.138	3.045	2.330	1.168	3.945	3.019	0.139	1279.	0.958	715.
0.135	3.023	2.313	1.185	3.945	3.019	0.136	1279.	0.958	716.
0.133	3.000	2.296	1.183	3.945	3.019	0.134	1278.	0.957	717.
0.131	2.976	2.279	1.181	3.939	3.016	0.132	1277.	0.957	719.
0.128	2.950	2.259	1.178	3.940	3.017	0.129	1276.	0.956	720.
0.125	2.919	2.237	1.175	3.934	3.014	0.126	1275.	0.955	721.
0.123	2.882	2.209	1.173	3.936	3.016	0.124	1274.	0.954	723.
0.120	2.845	2.180	1.170	3.932	3.013	0.121	1272.	0.953	724.
0.117	2.799	2.145	1.167	3.932	3.013	0.118	1269.	0.951	725.
0.114	2.750	2.109	1.164	3.929	3.013	0.115	1266.	0.948	726.
0.111	2.693	2.066	1.161	3.927	3.013	0.112	1262.	0.945	727.
0.109	2.631	2.017	1.159	3.924	3.009	0.110	1257.	0.942	728.
0.105	2.568	1.969	1.155	3.921	3.006	0.106	1252.	0.938	730.
0.103	2.501	1.919	1.153	3.920	3.008	0.104	1247.	0.934	731.
0.100	2.438	1.871	1.150	3.920	3.008	0.101	1242.	0.930	732.
0.097	2.372	1.820	1.147	3.916	3.005	0.098	1235.	0.925	733.
0.095	2.309	1.774	1.145	3.917	3.009	0.096	1229.	0.921	734.
0.092	2.242	1.722	1.142	3.913	3.006	0.093	1219.	0.913	735.
0.089	2.171	1.668	1.139	3.910	3.004	0.090	1209.	0.906	736.
0.086	2.097	1.612	1.136	3.908	3.005	0.087	1198.	0.897	738.
0.084	2.021	1.554	1.134	3.905	3.002	0.085	1188.	0.890	739.
0.080	1.948	1.498	1.130	3.904	3.002	0.081	1176.	0.881	740.
0.077	1.874	1.441	1.127	3.904	3.002	0.078	1163.	0.871	741.
0.074	1.800	1.385	1.124	3.902	3.002	0.075	1151.	0.862	742.
0.072	1.723	1.326	1.122	3.899	3.000	0.073	1135.	0.850	743.
0.069	1.649	1.270	1.119	3.897	3.000	0.070	1119.	0.838	744.
0.066	1.578	1.215	1.116	3.897	3.000	0.067	1105.	0.828	745.
0.064	1.507	1.160	1.114	3.891	2.998	0.065	1089.	0.816	746.
0.061	1.439	1.109	1.111	3.892	2.998	0.062	1074.	0.805	747.
0.058	1.370	1.056	1.108	3.890	2.997	0.059	1056.	0.791	748.
0.054	1.307	1.006	1.104	3.893	2.997	0.055	1038.	0.778	749.
0.052	1.244	0.957	1.102	3.897	2.998	0.053	1023.	0.766	750.
0.048	1.184	0.910	1.098	3.905	3.000	0.049	1007.	0.754	751.
0.046	1.125	0.863	1.096	3.910	3.000	0.047	990.	0.742	752.
0.043	1.071	0.820	1.093	3.915	2.998	0.044	976.	0.731	753.
0.040	1.018	0.778	1.090	3.920	2.997	0.041	958.	0.718	754.
0.037	0.967	0.738	1.087	3.925	2.995	0.038	942.	0.706	755.
0.034	0.923	0.704	1.084	3.930	2.997	0.035	926.	0.694	756.
0.032	0.880	0.669	1.082	3.936	2.995	0.033	908.	0.680	757.
0.029	0.838	0.637	1.079	3.939	2.994	0.030	890.	0.666	758.
0.025	0.800	0.608	1.075	3.940	2.990	0.026	876.	0.657	759.
0.022	0.767	0.583	1.072	3.938	2.989	0.023	859.	0.643	760.
TW2	TW1/TO	TW2	TW2/TO	TW3	TW3/TO				
(DEG R)	(DEG R)	(DEG R)	(DEG R)	(DEG R)	(DEG R)				
629.	0.471	600.	0.449	600.	0.449				
629.	0.471	600.	0.449	600.	0.449				
630.	0.472	600.	0.450	601.	0.450				
631.	0.472	601.	0.450	601.	0.450				
631.	0.473	601.	0.450	602.	0.451				
632.	0.473	602.	0.451	602.	0.451				
633.	0.474	602.	0.451	602.	0.451				
633.	0.474	603.	0.452	603.	0.452				
634.	0.475	603.	0.452	603.	0.452				
634.	0.475	604.	0.452	604.	0.452				
635.	0.476	604.	0.452	604.	0.452				
636.	0.476	604.	0.452	604.	0.452				
636.	0.477	604.	0.453	605.	0.453				
637.	0.477	605.	0.453	605.	0.453				
638.	0.478	605.	0.453	606.	0.454				
638.	0.478	606.	0.454	606.	0.454				
639.	0.479	606.	0.454	607.	0.454				
639.	0.479	607.	0.455	607.	0.455				
640.	0.480	607.	0.455	608.	0.455				
641.	0.480	608.	0.456	608.	0.456				
641.	0.480	608.	0.456	609.	0.456				
642.	0.481	609.	0.456	609.	0.456				
643.	0.481	610.	0.457	610.	0.457				
643.	0.482	610.	0.457	611.	0.457				
644.	0.482	611.	0.458	611.	0.458				
644.	0.482	612.	0.458	612.	0.458				
645.	0.483	612.	0.459	613.	0.459				
645.	0.483	613.	0.459	613.	0.459				
646.	0.484	614.	0.460	614.	0.460				
646.	0.484	614.	0.460	615.	0.460				
647.	0.485	615.	0.461	615.	0.461				

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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
40.	139	7.92	148.3	1336.	35.03	-5.03	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	W0-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.6	0.0162	1.317	0.712	3857.	0.443E-03	0.255E-05	0.670E 06	22.58	0.0	1.00	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.018	0.734	0.558	1.068	3.938	2.991	0.019	840.	0.629	761.	0.569	655.	0.490	615.	0.461
0.015	0.700	0.532	1.065	3.935	2.989	0.016	820.	0.614	762.	0.570	655.	0.490	616.	0.461
0.011	0.670	0.510	1.061	3.933	2.989	0.012	800.	0.599	763.	0.571	656.	0.491	616.	0.461
0.008	0.644	0.489	1.058	3.932	2.986	0.009	783.	0.586	764.	0.571	656.	0.491	616.	0.461
0.007	0.622	0.473	1.057	3.929	2.986	0.008	766.	0.573	764.	0.572	657.	0.492	617.	0.462
0.007	0.594	0.452	1.057	3.929	2.986	0.008	764.	0.572	766.	0.573	658.	0.492	617.	0.462

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
41.	139	7.92	151.4	1337.	35.04	-5.04	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	HMO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.7	0.0166	1.345	0.727	3859.	0.452E-03	0.256E-05	0.683E 06	20.32	0.0	0.90	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
			2.345	1.187	0.882	1.346	1286.	0.962	533.	0.399	532.	0.398	545.	0.408
			2.346	1.187	0.883	1.347	1287.	0.962	536.	0.401	534.	0.399	545.	0.408
1.342	4.272	3.195	2.392	1.183	0.885	1.343	1286.	0.962	568.	0.425	547.	0.409	551.	0.412
1.310	4.272	3.198	2.360	1.181	0.884	1.311	1287.	0.963	571.	0.427	548.	0.410	552.	0.413
1.276	4.278	3.200	2.326	1.182	0.884	1.277	1286.	0.962	574.	0.430	550.	0.411	552.	0.413
1.243	4.286	3.208	2.293	1.183	0.885	1.244	1287.	0.963	577.	0.432	551.	0.412	553.	0.414
1.209	4.293	3.213	2.259	1.183	0.885	1.210	1287.	0.963	580.	0.434	552.	0.413	554.	0.414
1.174	4.303	3.221	2.224	1.183	0.885	1.175	1287.	0.963	584.	0.436	553.	0.414	554.	0.414
1.140	4.315	3.228	2.190	1.183	0.885	1.141	1287.	0.963	587.	0.439	555.	0.415	555.	0.415
1.105	4.327	3.237	2.155	1.182	0.884	1.106	1288.	0.963	590.	0.441	556.	0.416	555.	0.415
1.070	4.340	3.246	2.120	1.183	0.885	1.071	1288.	0.963	593.	0.443	557.	0.417	556.	0.416
1.036	4.353	3.256	2.086	1.184	0.885	1.037	1288.	0.963	596.	0.446	558.	0.417	556.	0.416
1.003	4.364	3.264	2.053	1.183	0.885	1.004	1288.	0.963	599.	0.448	559.	0.418	557.	0.417
0.969	4.372	3.270	2.019	1.184	0.885	0.970	1287.	0.963	601.	0.450	560.	0.419	557.	0.417
0.936	4.375	3.273	1.986	1.185	0.886	0.937	1288.	0.963	604.	0.452	561.	0.420	558.	0.417
0.901	4.373	3.271	1.951	1.185	0.886	0.902	1288.	0.963	607.	0.454	563.	0.421	559.	0.418
0.866	4.375	3.273	1.916	1.183	0.885	0.867	1288.	0.963	610.	0.456	564.	0.422	559.	0.418
0.832	4.377	3.276	1.882	1.184	0.886	0.833	1288.	0.963	613.	0.458	565.	0.422	560.	0.419
0.797	4.380	3.278	1.847	1.182	0.885	0.798	1287.	0.963	615.	0.460	566.	0.423	560.	0.419
0.762	4.370	3.286	1.812	1.199	0.897	0.763	1287.	0.963	618.	0.462	567.	0.424	561.	0.419
0.725	4.401	3.296	1.775	1.325	0.942	0.726	1287.	0.962	621.	0.464	568.	0.425	561.	0.420
0.693	4.410	3.303	1.743	2.109	1.580	0.694	1287.	0.963	623.	0.466	569.	0.426	562.	0.420
0.659	4.418	3.311	1.709	3.644	2.731	0.660	1287.	0.962	626.	0.468	570.	0.426	562.	0.420
0.624	4.426	3.320	1.674	4.152	3.114	0.625	1286.	0.962	628.	0.470	571.	0.427	563.	0.421
0.589	4.428	3.323	1.639	4.150	3.114	0.590	1286.	0.962	631.	0.472	572.	0.428	563.	0.421
0.555	4.430	3.327	1.605	4.159	3.123	0.556	1285.	0.961	633.	0.474	573.	0.429	564.	0.422
0.520	4.430	3.329	1.570	4.171	3.134	0.521	1285.	0.961	636.	0.475	574.	0.429	564.	0.422
0.486	4.435	3.333	1.536	4.185	3.145	0.487	1285.	0.961	638.	0.477	575.	0.430	565.	0.422
0.451	4.435	3.337	1.501	4.197	3.158	0.452	1285.	0.961	640.	0.479	576.	0.431	566.	0.423
0.416	4.433	3.336	1.466	4.205	3.164	0.417	1285.	0.961	643.	0.481	577.	0.431	567.	0.424
0.382	4.425	3.330	1.432	4.220	3.175	0.383	1285.	0.961	645.	0.482	578.	0.432	567.	0.424
0.360	4.403	3.316	1.410	4.228	3.184	0.361	1286.	0.962	647.	0.484	579.	0.433	568.	0.425
0.351	4.382	3.306	1.401	4.230	3.192	0.352	1286.	0.962	649.	0.486	580.	0.434	568.	0.425
0.342	4.361	3.288	1.392	4.231	3.190	0.343	1286.	0.962	651.	0.487	581.	0.434	569.	0.425
0.337	4.343	3.274	1.387	4.233	3.191	0.338	1286.	0.962	654.	0.489	581.	0.435	569.	0.426
0.334	4.327	3.267	1.384	4.231	3.194	0.335	1286.	0.962	656.	0.490	582.	0.436	570.	0.426
0.332	4.316	3.260	1.382	4.232	3.197	0.333	1286.	0.962	658.	0.492	583.	0.436	570.	0.427
0.329	4.304	3.254	1.379	4.228	3.196	0.330	1287.	0.962	660.	0.494	584.	0.437	571.	0.427
0.326	4.286	3.250	1.376	4.228	3.199	0.327	1287.	0.962	662.	0.495	585.	0.438	571.	0.427
0.323	4.286	3.243	1.373	4.225	3.196	0.324	1286.	0.962	664.	0.497	586.	0.438	572.	0.428
0.321	4.277	3.238	1.371	4.225	3.198	0.322	1286.	0.962	666.	0.498	587.	0.439	572.	0.428
0.319	4.267	3.232	1.369	4.222	3.198	0.320	1287.	0.962	668.	0.499	588.	0.440	573.	0.428



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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
41.	139	7.92	148.6	1337.	35.05	-5.05	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	O-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.7	0.0162	1.319	0.713	3859.	0.444E-03	0.256E-05	0.670E 06	20.32	0.0	0.90	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZF2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.316	4.258	3.228	1.366	4.220	3.199	0.317	1287.	0.962	670.	0.501	589.	0.440	573.	0.429
0.314	4.251	3.224	1.364	4.220	3.201	0.315	1287.	0.963	672.	0.502	589.	0.441	574.	0.429
0.311	4.242	3.217	1.361	4.220	3.201	0.312	1287.	0.962	673.	0.504	590.	0.442	574.	0.429
0.308	4.229	3.210	1.358	4.216	3.200	0.309	1287.	0.962	675.	0.505	591.	0.442	575.	0.430
0.305	4.217	3.205	1.355	4.216	3.205	0.308	1287.	0.963	677.	0.506	592.	0.443	575.	0.430
0.301	4.205	3.198	1.351	4.216	3.207	0.302	1287.	0.963	679.	0.508	593.	0.443	576.	0.430
0.298	4.191	3.190	1.348	4.210	3.204	0.299	1287.	0.963	681.	0.509	594.	0.444	576.	0.431
0.295	4.180	3.184	1.345	4.213	3.209	0.296	1287.	0.963	682.	0.510	595.	0.445	576.	0.431
0.292	4.171	3.177	1.342	4.213	3.209	0.293	1288.	0.963	684.	0.512	595.	0.445	577.	0.432
0.290	4.163	3.170	1.340	4.217	3.211	0.291	1288.	0.963	686.	0.513	596.	0.446	577.	0.432
0.286	4.153	3.161	1.336	4.214	3.207	0.287	1287.	0.963	688.	0.514	597.	0.447	578.	0.432
0.283	4.143	3.155	1.333	4.219	3.213	0.284	1288.	0.963	689.	0.516	598.	0.447	578.	0.433
0.279	4.134	3.146	1.329	4.222	3.213	0.280	1287.	0.963	691.	0.517	599.	0.448	579.	0.433
0.276	4.123	3.138	1.326	4.227	3.217	0.277	1288.	0.963	692.	0.518	600.	0.449	579.	0.433
0.273	4.112	3.132	1.323	4.224	3.217	0.274	1287.	0.963	694.	0.519	601.	0.449	580.	0.434
0.270	4.102	3.122	1.320	4.226	3.216	0.271	1288.	0.963	696.	0.520	601.	0.450	580.	0.434
0.267	4.092	3.114	1.317	4.225	3.216	0.268	1288.	0.963	697.	0.522	602.	0.450	581.	0.434
0.263	4.080	3.105	1.313	4.226	3.216	0.264	1288.	0.963	699.	0.523	603.	0.451	581.	0.435
0.260	4.070	3.100	1.310	4.228	3.220	0.261	1288.	0.963	700.	0.524	604.	0.452	582.	0.435
0.257	4.056	3.089	1.307	4.224	3.217	0.258	1288.	0.963	702.	0.525	604.	0.452	582.	0.435
0.253	4.044	3.080	1.303	4.225	3.218	0.254	1288.	0.963	703.	0.526	605.	0.453	583.	0.436
0.250	4.032	3.071	1.300	4.225	3.218	0.251	1289.	0.964	705.	0.527	606.	0.453	583.	0.436
0.248	4.020	3.064	1.298	4.227	3.222	0.249	1288.	0.964	706.	0.528	607.	0.454	583.	0.436
0.245	4.006	3.055	1.295	4.226	3.223	0.246	1288.	0.963	708.	0.529	607.	0.454	584.	0.437
0.242	3.995	3.047	1.292	4.224	3.221	0.243	1288.	0.964	709.	0.530	608.	0.455	584.	0.437
0.238	3.983	3.040	1.288	4.225	3.224	0.239	1288.	0.963	711.	0.531	609.	0.455	585.	0.437
0.235	3.970	3.030	1.285	4.225	3.224	0.236	1288.	0.963	712.	0.533	610.	0.456	585.	0.438
0.232	3.961	3.025	1.282	4.223	3.225	0.233	1288.	0.963	713.	0.534	610.	0.457	586.	0.438
0.230	3.948	3.015	1.280	4.220	3.223	0.231	1288.	0.963	715.	0.535	611.	0.457	586.	0.438
0.226	3.933	3.003	1.276	4.223	3.225	0.227	1288.	0.963	716.	0.536	612.	0.458	587.	0.439
0.223	3.921	2.996	1.273	4.221	3.226	0.224	1288.	0.963	718.	0.537	613.	0.458	587.	0.439
0.221	3.909	2.989	1.271	4.220	3.227	0.222	1288.	0.963	719.	0.538	613.	0.459	588.	0.440
0.218	3.895	2.978	1.268	4.222	3.229	0.219	1287.	0.963	720.	0.539	614.	0.459	588.	0.440
0.215	3.883	2.971	1.265	4.215	3.226	0.216	1287.	0.963	722.	0.540	615.	0.460	589.	0.440
0.213	3.872	2.963	1.263	4.218	3.228	0.214	1287.	0.963	723.	0.541	616.	0.460	589.	0.441
0.210	3.858	2.954	1.260	4.212	3.225	0.211	1287.	0.963	724.	0.542	616.	0.461	590.	0.441
0.207	3.847	2.948	1.257	4.215	3.230	0.208	1287.	0.963	725.	0.543	617.	0.462	590.	0.441
0.204	3.836	2.939	1.254	4.212	3.228	0.205	1286.	0.962	727.	0.543	618.	0.462	590.	0.442
0.201	3.819	2.926	1.251	4.210	3.226	0.202	1287.	0.962	728.	0.544	618.	0.463	591.	0.442
0.197	3.803	2.918	1.247	4.210	3.230	0.198	1287.	0.962	729.	0.545	619.	0.463	591.	0.442
0.192	3.786	2.907	1.242	4.210	3.233	0.193	1286.	0.962	730.	0.546	620.	0.464	592.	0.443
0.190	3.766	2.890	1.240	4.213	3.233	0.191	1286.	0.962	732.	0.547	621.	0.464	592.	0.443

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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
41.	139	7.92	146.8	1337.	35.05	-5.05	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	O-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	PU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.7	0.0160	1.303	0.704	3859.	0.438E-03	0.256E-05	0.662E 06	20.32	0.0	0.90	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.185	3.752	2.879	1.235	4.216	3.235	0.186	1286.	0.962	733.	0.548	621.	0.465	593.	0.443
0.182	3.738	2.866	1.232	4.220	3.236	0.183	1286.	0.962	734.	0.549	622.	0.465	593.	0.444
0.179	3.724	2.854	1.229	4.224	3.236	0.180	1285.	0.961	735.	0.550	623.	0.466	594.	0.444
0.176	3.713	2.843	1.226	4.228	3.238	0.177	1286.	0.962	736.	0.551	623.	0.466	594.	0.444
0.174	3.704	2.834	1.224	4.231	3.238	0.175	1285.	0.961	737.	0.552	624.	0.467	595.	0.445
0.170	3.692	2.823	1.220	4.234	3.238	0.171	1285.	0.961	739.	0.552	625.	0.467	595.	0.445
0.167	3.682	2.814	1.217	4.239	3.240	0.168	1285.	0.961	740.	0.553	625.	0.468	595.	0.445
0.164	3.670	2.802	1.214	4.244	3.241	0.165	1285.	0.961	741.	0.554	626.	0.468	596.	0.446
0.161	3.655	2.791	1.211	4.243	3.240	0.162	1285.	0.961	742.	0.555	627.	0.469	596.	0.446
0.159	3.641	2.778	1.209	4.247	3.241	0.160	1285.	0.961	743.	0.556	627.	0.469	597.	0.446
0.156	3.628	2.769	1.206	4.250	3.244	0.157	1285.	0.961	744.	0.557	628.	0.470	597.	0.447
0.152	3.612	2.756	1.202	4.251	3.244	0.153	1285.	0.961	745.	0.557	629.	0.470	598.	0.447
0.149	3.594	2.741	1.199	4.255	3.245	0.150	1284.	0.961	746.	0.558	630.	0.471	598.	0.447
0.146	3.577	2.728	1.196	4.254	3.244	0.147	1285.	0.961	747.	0.559	630.	0.471	599.	0.448
0.142	3.559	2.712	1.192	4.256	3.244	0.143	1285.	0.961	748.	0.560	631.	0.472	599.	0.448
0.139	3.539	2.697	1.189	4.260	3.247	0.140	1285.	0.961	749.	0.561	631.	0.472	600.	0.449
0.135	3.516	2.679	1.185	4.262	3.248	0.136	1284.	0.961	751.	0.561	632.	0.473	600.	0.449
0.131	3.489	2.659	1.181	4.263	3.249	0.132	1284.	0.960	752.	0.562	633.	0.473	601.	0.449
0.128	3.459	2.636	1.178	4.262	3.248	0.129	1284.	0.960	753.	0.563	634.	0.474	601.	0.450
0.124	3.428	2.612	1.174	4.268	3.253	0.125	1284.	0.960	754.	0.564	634.	0.474	602.	0.450
0.120	3.395	2.588	1.170	4.269	3.254	0.121	1284.	0.960	755.	0.564	635.	0.475	602.	0.451
0.117	3.360	2.561	1.167	4.268	3.253	0.118	1283.	0.960	756.	0.565	635.	0.475	603.	0.451
0.114	3.316	2.528	1.164	4.267	3.252	0.115	1283.	0.959	757.	0.566	636.	0.476	604.	0.452
0.110	3.275	2.496	1.160	4.270	3.254	0.111	1282.	0.959	758.	0.567	637.	0.476	605.	0.452
0.106	3.226	2.454	1.156	4.269	3.254	0.107	1281.	0.958	759.	0.567	637.	0.477	606.	0.453
0.103	3.180	2.423	1.153	4.273	3.256	0.104	1280.	0.957	760.	0.568	638.	0.477	607.	0.454
0.101	3.127	2.383	1.151	4.271	3.255	0.102	1279.	0.956	761.	0.569	638.	0.478	607.	0.454
0.097	3.069	2.339	1.147	4.269	3.254	0.098	1278.	0.955	761.	0.570	639.	0.478	609.	0.455
0.094	3.007	2.292	1.144	4.274	3.257	0.095	1274.	0.953	762.	0.570	640.	0.479	610.	0.456
0.091	2.942	2.242	1.141	4.276	3.259	0.092	1270.	0.950	763.	0.571	640.	0.479	611.	0.457
0.088	2.868	2.187	1.138	4.274	3.259	0.089	1266.	0.947	764.	0.572	641.	0.479	612.	0.458
0.085	2.790	2.128	1.135	4.274	3.260	0.086	1261.	0.943	765.	0.572	642.	0.480	613.	0.458
0.083	2.714	2.070	1.133	4.274	3.260	0.084	1256.	0.939	766.	0.573	642.	0.481	613.	0.459
0.079	2.633	2.008	1.129	4.273	3.259	0.080	1249.	0.934	767.	0.574	643.	0.481	614.	0.459
0.077	2.546	1.942	1.127	4.276	3.261	0.078	1241.	0.928	768.	0.574	644.	0.481	615.	0.460
0.074	2.452	1.871	1.124	4.276	3.263	0.075	1231.	0.921	769.	0.575	644.	0.482	616.	0.461
0.071	2.355	1.797	1.121	4.269	3.258	0.072	1220.	0.913	770.	0.576	645.	0.482	616.	0.461
0.068	2.253	1.720	1.118	4.273	3.263	0.069	1206.	0.902	771.	0.576	646.	0.483	617.	0.462
0.064	2.146	1.639	1.114	4.276	3.265	0.065	1190.	0.890	771.	0.577	646.	0.483	618.	0.462
0.061	2.037	1.556	1.111	4.275	3.265	0.062	1175.	0.879	772.	0.578	647.	0.484	619.	0.463
0.058	1.933	1.476	1.108	4.275	3.265	0.059	1157.	0.866	773.	0.578	647.	0.484	619.	0.463
0.056	1.826	1.395	1.106	4.274	3.264	0.057	1138.	0.851	774.	0.579	648.	0.485	620.	0.464

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
41.	139	7.92	147.4	1337.	35.05	-5.05	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RMU-INF (LBM/FT3)	NU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.7	0.0161	1.309	0.707	3859.	0.440E-03	0.256E-05	0.665E 06	20.32	0.0	0.90	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.052	1.728	1.321	1.102	4.272	3.265	0.053	1119.	0.837	775.	0.580	648.	0.485	621.	0.464
0.050	1.642	1.256	1.100	4.275	3.269	0.051	1111.	0.831	776.	0.580	649.	0.485	622.	0.465
0.047	1.557	1.191	1.097	4.272	3.267	0.048	1093.	0.818	777.	0.581	650.	0.486	622.	0.466
0.043	1.474	1.127	1.093	4.275	3.269	0.044	1071.	0.801	777.	0.581	650.	0.486	624.	0.466
0.040	1.392	1.064	1.090	4.275	3.269	0.041	1047.	0.783	778.	0.582	651.	0.487	625.	0.467
0.037	1.311	1.002	1.087	4.273	3.268	0.038	1024.	0.766	779.	0.583	651.	0.487	626.	0.468
0.033	1.236	0.946	1.083	4.277	3.273	0.034	1000.	0.748	780.	0.583	652.	0.488	628.	0.470
0.030	1.165	0.891	1.080	4.277	3.271	0.031	976.	0.730	781.	0.584	652.	0.488	629.	0.471
0.027	1.097	0.839	1.077	4.276	3.274	0.028	951.	0.711	782.	0.585	653.	0.489	631.	0.472
0.023	1.035	0.791	1.073	4.277	3.271	0.024	928.	0.694	782.	0.585	654.	0.489	632.	0.473
0.020	0.979	0.749	1.070	4.283	3.275	0.021	905.	0.677	783.	0.586	654.	0.489	634.	0.474
0.019	0.924	0.706	1.069	4.285	3.277	0.020	886.	0.663	784.	0.586	655.	0.490	635.	0.475
0.015	0.876	0.670	1.065	4.287	3.278	0.016	861.	0.644	785.	0.587	655.	0.490	637.	0.476
0.012	0.832	0.636	1.062	4.287	3.276	0.013	837.	0.626	785.	0.587	656.	0.491	638.	0.477
0.010	0.793	0.606	1.060	4.289	3.276	0.011	780.	0.583	786.	0.588	657.	0.491	640.	0.478
0.007	0.711	0.543	1.057	4.292	3.278	0.008	784.	0.586	788.	0.590	658.	0.492	642.	0.480

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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
42.	139	7.92	149.5	1336.	34.99	-4.99	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	O-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.6	0.0164	1.328	0.718	3857.	0.447E-03	0.255E-05	0.675E 06	18.06	0.0	0.80	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/YO	Tw1 (DEG R)	Tw1/YO	Tw2 (DEG R)	Tw2/YO	Tw3 (DEG R)	Tw3/YO
			2.432	1.179	0.888	1.383	1281.	0.959	523.	0.391	518.	0.388	534.	0.400
			2.432	1.179	0.888	1.383	1282.	0.959	526.	0.394	520.	0.389	535.	0.400
1.378	4.136	3.108	2.428	1.161	0.887	1.379	1281.	0.959	555.	0.416	533.	0.399	540.	0.404
1.348	4.140	3.111	2.398	1.162	0.888	1.349	1281.	0.959	558.	0.418	534.	0.400	540.	0.405
1.314	4.139	3.112	2.364	1.182	0.889	1.315	1281.	0.959	561.	0.420	535.	0.401	541.	0.405
1.281	4.141	3.114	2.331	1.181	0.888	1.282	1281.	0.958	565.	0.423	537.	0.402	542.	0.405
1.248	4.143	3.115	2.298	1.180	0.887	1.249	1281.	0.959	568.	0.425	538.	0.403	543.	0.406
1.214	4.145	3.119	2.264	1.180	0.888	1.215	1281.	0.959	571.	0.427	539.	0.403	544.	0.407
1.180	4.146	3.119	2.230	1.178	0.887	1.181	1281.	0.959	574.	0.429	540.	0.404	545.	0.408
1.143	4.153	3.127	2.193	1.179	0.888	1.144	1281.	0.959	577.	0.432	541.	0.405	546.	0.409
1.108	4.163	3.135	2.158	1.178	0.887	1.109	1281.	0.959	580.	0.434	542.	0.406	547.	0.410
1.074	4.172	3.144	2.124	1.179	0.888	1.075	1281.	0.959	583.	0.436	544.	0.407	548.	0.410
1.040	4.175	3.145	2.090	1.175	0.888	1.041	1281.	0.959	586.	0.438	545.	0.408	549.	0.411
1.006	4.177	3.149	2.056	1.178	0.888	1.007	1281.	0.959	589.	0.441	546.	0.409	550.	0.411
0.972	4.174	3.147	2.022	1.175	0.886	0.973	1281.	0.959	591.	0.443	547.	0.409	550.	0.412
0.937	4.173	3.151	1.987	1.175	0.887	0.938	1281.	0.959	594.	0.445	548.	0.410	551.	0.412
0.902	4.176	3.153	1.952	1.176	0.888	0.903	1281.	0.959	597.	0.447	549.	0.411	552.	0.413
0.867	4.182	3.160	1.917	1.176	0.888	0.868	1281.	0.959	600.	0.449	550.	0.412	552.	0.413
0.832	4.187	3.163	1.882	1.175	0.888	0.833	1280.	0.958	602.	0.451	552.	0.413	553.	0.414
0.797	4.197	3.175	1.847	1.175	0.889	0.798	1281.	0.958	605.	0.453	553.	0.414	553.	0.414
0.763	4.211	3.186	1.813	1.174	0.888	0.764	1280.	0.958	608.	0.455	554.	0.415	553.	0.414
0.726	4.228	3.199	1.776	1.174	0.888	0.727	1281.	0.958	610.	0.457	555.	0.415	553.	0.414
0.693	4.246	3.214	1.743	1.174	0.889	0.694	1280.	0.958	613.	0.459	556.	0.416	553.	0.414
0.658	4.261	3.228	1.708	1.173	0.888	0.659	1280.	0.958	615.	0.461	557.	0.417	553.	0.414
0.624	4.276	3.241	1.674	1.171	0.888	0.625	1280.	0.958	618.	0.462	558.	0.418	553.	0.414
0.588	4.291	3.257	1.638	1.172	0.889	0.589	1280.	0.958	620.	0.464	559.	0.418	553.	0.414
0.553	4.309	3.271	1.603	1.178	0.894	0.554	1280.	0.958	623.	0.466	560.	0.419	554.	0.415
0.518	4.328	3.290	1.568	1.253	0.952	0.519	1280.	0.958	625.	0.468	561.	0.420	555.	0.415
0.483	4.349	3.308	1.533	1.822	1.388	0.484	1279.	0.958	627.	0.470	562.	0.421	555.	0.416
0.448	4.371	3.327	1.498	3.227	2.456	0.449	1279.	0.958	630.	0.471	563.	0.421	556.	0.416
0.414	4.399	3.348	1.464	4.113	3.130	0.415	1280.	0.958	632.	0.473	564.	0.422	556.	0.416
0.382	4.430	3.374	1.432	4.101	3.123	0.383	1280.	0.958	634.	0.475	565.	0.423	557.	0.417
0.373	4.449	3.389	1.423	4.105	3.126	0.374	1280.	0.958	636.	0.476	566.	0.423	558.	0.417
0.366	4.459	3.396	1.416	4.105	3.126	0.367	1280.	0.958	639.	0.478	567.	0.424	558.	0.418
0.363	4.463	3.397	1.413	4.107	3.126	0.364	1281.	0.959	641.	0.480	568.	0.425	559.	0.418
0.359	4.468	3.401	1.409	4.110	3.128	0.360	1280.	0.958	643.	0.481	569.	0.426	559.	0.419
0.356	4.470	3.402	1.406	4.109	3.127	0.357	1281.	0.959	645.	0.483	570.	0.426	560.	0.419
0.353	4.475	3.402	1.403	4.115	3.128	0.354	1281.	0.959	647.	0.484	570.	0.427	561.	0.420
0.351	4.477	3.403	1.401	4.118	3.130	0.352	1281.	0.959	649.	0.486	571.	0.428	561.	0.420
0.349	4.478	3.401	1.399	4.114	3.125	0.350	1281.	0.959	651.	0.487	572.	0.428	562.	0.420
0.346	4.479	3.402	1.396	4.117	3.127	0.347	1281.	0.959	653.	0.489	573.	0.429	562.	0.421
0.344	4.481	3.402	1.394	4.118	3.126	0.345	1281.	0.959	655.	0.490	574.	0.430	563.	0.421

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GROUP	MODEL	MACH NO.	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
42.	139	7.92	148.4	1336.	35.01	-5.01	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	POI (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	HUO-INF (LBM/FT <sup>3</sup> )	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L (IN)	L (IN)			
98.6	0.0162	1.317	0.712	3857.	0.444E-03	0.255E-05	0.670E 06	18.06	0.0	0.80	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.340	4.482	3.402	1.390	4.118	3.126	0.341	1281.	0.459	657.	0.492	575.	0.431	563.	0.422
0.337	4.480	3.400	1.387	4.117	3.125	0.338	1281.	0.459	659.	0.493	576.	0.431	564.	0.422
0.333	4.479	3.400	1.383	4.120	3.128	0.334	1281.	0.459	661.	0.495	577.	0.432	564.	0.422
0.331	4.476	3.398	1.381	4.124	3.130	0.332	1281.	0.459	663.	0.496	578.	0.433	565.	0.423
0.327	4.475	3.395	1.377	4.122	3.127	0.328	1282.	0.459	665.	0.498	579.	0.433	565.	0.423
0.324	4.472	3.392	1.374	4.122	3.127	0.325	1282.	0.459	667.	0.499	579.	0.434	566.	0.423
0.321	4.465	3.389	1.371	4.119	3.127	0.322	1282.	0.459	668.	0.500	581.	0.435	566.	0.424
0.318	4.465	3.389	1.368	4.122	3.129	0.319	1282.	0.459	670.	0.502	581.	0.435	567.	0.424
0.314	4.463	3.386	1.364	4.123	3.127	0.315	1282.	0.459	672.	0.503	582.	0.436	567.	0.424
0.312	4.458	3.386	1.362	4.120	3.129	0.313	1282.	0.460	674.	0.504	583.	0.436	568.	0.425
0.308	4.451	3.381	1.358	4.120	3.129	0.309	1281.	0.459	675.	0.506	584.	0.437	568.	0.425
0.305	4.447	3.378	1.355	4.121	3.130	0.306	1282.	0.460	677.	0.507	585.	0.438	569.	0.426
0.302	4.442	3.372	1.352	4.118	3.126	0.303	1282.	0.460	679.	0.508	585.	0.438	569.	0.426
0.299	4.435	3.369	1.349	4.115	3.126	0.300	1282.	0.460	681.	0.509	586.	0.439	570.	0.426
0.296	4.429	3.364	1.346	4.118	3.128	0.297	1282.	0.460	682.	0.511	587.	0.439	570.	0.427
0.293	4.421	3.358	1.343	4.115	3.126	0.294	1283.	0.460	684.	0.512	588.	0.440	570.	0.427
0.290	4.416	3.357	1.340	4.117	3.129	0.291	1283.	0.460	685.	0.513	589.	0.441	571.	0.427
0.288	4.409	3.351	1.338	4.117	3.129	0.284	1282.	0.460	687.	0.514	589.	0.441	571.	0.428
0.285	4.401	3.348	1.335	4.114	3.129	0.286	1283.	0.460	689.	0.515	591.	0.442	572.	0.428
0.282	4.395	3.343	1.332	4.115	3.130	0.283	1283.	0.460	690.	0.517	591.	0.443	572.	0.428
0.279	4.388	3.337	1.329	4.111	3.127	0.280	1283.	0.460	692.	0.518	592.	0.443	573.	0.429
0.277	4.382	3.335	1.327	4.112	3.130	0.278	1283.	0.460	693.	0.519	593.	0.444	573.	0.429
0.274	4.377	3.329	1.324	4.117	3.131	0.275	1283.	0.461	695.	0.520	594.	0.444	574.	0.430
0.270	4.369	3.323	1.320	4.115	3.130	0.271	1283.	0.461	696.	0.521	594.	0.445	574.	0.430
0.267	4.363	3.316	1.317	4.118	3.130	0.268	1283.	0.461	698.	0.522	595.	0.446	575.	0.430
0.264	4.355	3.310	1.314	4.118	3.130	0.265	1283.	0.460	699.	0.523	596.	0.446	575.	0.431
0.260	4.345	3.302	1.310	4.120	3.132	0.261	1283.	0.461	701.	0.524	597.	0.447	576.	0.431
0.257	4.336	3.297	1.307	4.120	3.132	0.258	1284.	0.461	702.	0.526	598.	0.447	576.	0.431
0.254	4.330	3.289	1.304	4.121	3.130	0.255	1284.	0.461	704.	0.527	598.	0.448	577.	0.432
0.251	4.322	3.283	1.301	4.124	3.132	0.252	1284.	0.461	705.	0.528	599.	0.448	577.	0.432
0.248	4.312	3.273	1.298	4.123	3.130	0.249	1284.	0.461	706.	0.529	600.	0.449	578.	0.432
0.245	4.303	3.269	1.295	4.122	3.131	0.246	1284.	0.461	708.	0.530	601.	0.450	578.	0.433
0.241	4.294	3.262	1.291	4.127	3.135	0.242	1284.	0.461	709.	0.531	601.	0.450	579.	0.433
0.238	4.286	3.256	1.288	4.129	3.136	0.239	1284.	0.461	711.	0.532	602.	0.451	579.	0.434
0.235	4.276	3.248	1.285	4.127	3.135	0.236	1284.	0.461	712.	0.533	603.	0.451	580.	0.434
0.232	4.264	3.239	1.282	4.127	3.135	0.233	1285.	0.462	713.	0.534	604.	0.452	580.	0.434
0.230	4.254	3.231	1.280	4.125	3.134	0.231	1285.	0.462	714.	0.535	604.	0.452	581.	0.435
0.226	4.243	3.223	1.276	4.123	3.132	0.227	1285.	0.462	716.	0.536	605.	0.453	581.	0.435
0.224	4.234	3.216	1.274	4.128	3.135	0.225	1285.	0.462	717.	0.537	606.	0.453	582.	0.435
0.222	4.227	3.211	1.272	4.129	3.136	0.223	1285.	0.462	718.	0.538	607.	0.454	582.	0.436
0.219	4.218	3.202	1.269	4.132	3.136	0.220	1285.	0.462	720.	0.539	607.	0.455	583.	0.436
0.216	4.207	3.196	1.266	4.129	3.136	0.217	1285.	0.462	721.	0.540	608.	0.455	583.	0.436

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MGDEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
42.	133	7.92	148.3	1336.	35.01	-5.01	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FY/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.6	0.0162	1.317	0.712	3857.	0.443E-03	0.255E-05	0.670E 06	18.06	0.0	0.80	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.213	4.199	3.190	1.263	4.130	3.137	0.214	1285.	0.962	722.	0.541	609.	0.456	584.	0.437
0.210	4.190	3.181	1.260	4.132	3.136	0.211	1285.	0.962	723.	0.541	610.	0.456	584.	0.437
0.207	4.178	3.174	1.257	4.134	3.140	0.208	1285.	0.962	725.	0.542	610.	0.457	585.	0.438
0.204	4.167	3.165	1.254	4.131	3.138	0.205	1285.	0.962	726.	0.543	611.	0.457	585.	0.438
0.202	4.158	3.156	1.252	4.132	3.136	0.203	1286.	0.962	727.	0.544	612.	0.458	585.	0.438
0.199	4.147	3.150	1.249	4.135	3.141	0.200	1286.	0.962	728.	0.545	612.	0.458	586.	0.439
0.196	4.138	3.143	1.246	4.133	3.139	0.197	1286.	0.963	729.	0.546	613.	0.459	586.	0.439
0.193	4.127	3.135	1.243	4.135	3.141	0.194	1286.	0.962	731.	0.547	614.	0.459	587.	0.439
0.190	4.114	3.125	1.240	4.133	3.139	0.191	1286.	0.962	732.	0.548	615.	0.460	587.	0.440
0.188	4.103	3.117	1.238	4.133	3.139	0.189	1286.	0.963	733.	0.549	615.	0.460	588.	0.440
0.185	4.091	3.107	1.235	4.131	3.138	0.186	1287.	0.963	734.	0.549	616.	0.461	588.	0.440
0.182	4.079	3.098	1.232	4.130	3.137	0.183	1286.	0.963	735.	0.550	617.	0.462	589.	0.441
0.178	4.064	3.087	1.228	4.134	3.140	0.179	1286.	0.963	736.	0.551	617.	0.462	589.	0.441
0.175	4.051	3.077	1.225	4.128	3.135	0.176	1286.	0.962	737.	0.552	618.	0.463	590.	0.441
0.172	4.037	3.068	1.222	4.130	3.139	0.173	1287.	0.963	739.	0.553	619.	0.463	590.	0.442
0.170	4.022	3.055	1.220	4.129	3.137	0.171	1287.	0.963	740.	0.554	619.	0.464	591.	0.442
0.166	4.012	3.049	1.216	4.130	3.139	0.167	1287.	0.963	741.	0.554	620.	0.464	591.	0.442
0.164	3.997	3.036	1.214	4.130	3.137	0.165	1286.	0.963	742.	0.555	621.	0.465	591.	0.443
0.160	3.985	3.027	1.210	4.128	3.135	0.161	1287.	0.963	743.	0.556	621.	0.465	592.	0.443
0.157	3.971	3.018	1.207	4.128	3.138	0.158	1287.	0.963	744.	0.557	622.	0.466	592.	0.443
0.154	3.955	3.006	1.204	4.127	3.137	0.155	1287.	0.963	745.	0.558	623.	0.466	593.	0.444
0.151	3.938	2.995	1.201	4.126	3.138	0.152	1287.	0.963	746.	0.558	624.	0.467	593.	0.444
0.148	3.919	2.981	1.198	4.124	3.137	0.149	1287.	0.963	747.	0.559	624.	0.467	594.	0.444
0.144	3.906	2.971	1.194	4.127	3.139	0.145	1287.	0.964	748.	0.560	625.	0.468	594.	0.445
0.141	3.891	2.959	1.191	4.126	3.138	0.142	1288.	0.964	749.	0.561	625.	0.468	595.	0.445
0.136	3.872	2.947	1.188	4.125	3.140	0.139	1288.	0.964	750.	0.561	626.	0.469	595.	0.446
0.134	3.852	2.930	1.184	4.126	3.138	0.135	1288.	0.964	751.	0.562	627.	0.469	596.	0.446
0.131	3.831	2.916	1.181	4.130	3.143	0.132	1288.	0.964	752.	0.563	628.	0.470	596.	0.446
0.128	3.811	2.902	1.178	4.126	3.142	0.129	1288.	0.964	753.	0.564	628.	0.470	597.	0.447
0.125	3.790	2.884	1.175	4.126	3.140	0.126	1288.	0.964	754.	0.564	629.	0.471	597.	0.447
0.122	3.770	2.871	1.172	4.126	3.142	0.123	1288.	0.964	755.	0.565	629.	0.471	598.	0.447
0.119	3.749	2.857	1.169	4.127	3.145	0.120	1288.	0.964	756.	0.566	630.	0.472	598.	0.448
0.116	3.726	2.838	1.166	4.128	3.144	0.117	1288.	0.964	757.	0.567	631.	0.472	599.	0.448
0.113	3.702	2.819	1.163	4.128	3.144	0.114	1288.	0.964	758.	0.567	631.	0.473	599.	0.449
0.110	3.676	2.801	1.160	4.128	3.146	0.111	1289.	0.964	759.	0.568	632.	0.473	600.	0.449
0.107	3.645	2.778	1.157	4.126	3.145	0.108	1289.	0.964	760.	0.569	632.	0.473	600.	0.449
0.103	3.614	2.754	1.153	4.131	3.148	0.104	1288.	0.964	761.	0.569	633.	0.474	601.	0.450
0.101	3.580	2.730	1.151	4.129	3.149	0.102	1288.	0.964	762.	0.570	634.	0.474	602.	0.450
0.098	3.542	2.701	1.148	4.130	3.150	0.099	1288.	0.964	762.	0.571	635.	0.475	603.	0.451
0.095	3.503	2.671	1.145	4.133	3.152	0.096	1289.	0.964	763.	0.571	635.	0.475	603.	0.452
0.091	3.460	2.640	1.141	4.131	3.153	0.092	1288.	0.964	764.	0.572	636.	0.476	604.	0.452
0.088	3.407	2.598	1.138	4.131	3.151	0.089	1287.	0.964	765.	0.573	636.	0.476	605.	0.453

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GROUP 42.	MODEL 139	NACH NO 7.92	PO (PSIA) 147.7	TO (DEG R) 1336.	ALPHA-MODEL 35.01	ALPHA-SECTOR -5.01	ALPHA-PREBEND 30.00	ROLL-MODEL 180.00	YAW 0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	W0-INF (LBM/FT3)	WU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L 0.80	L (IN)			
98.6	0.0161	1.311	0.709	3857.	0.441E-03	0.255E-05	0.667E 06	18.06	0.0		22.56			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.086	3.354	2.558	1.136	4.133	3.152	0.087	1286.	0.963	766.	0.573	637.	0.477	605.	0.453
0.083	3.293	2.513	1.133	4.132	3.153	0.084	1285.	0.962	767.	0.574	638.	0.477	606.	0.454
0.079	3.228	2.464	1.129	4.133	3.154	0.080	1283.	0.960	768.	0.575	638.	0.478	607.	0.454
0.076	3.155	2.408	1.126	4.132	3.153	0.077	1280.	0.958	769.	0.575	639.	0.478	607.	0.455
0.073	3.062	2.338	1.123	4.132	3.156	0.074	1275.	0.954	770.	0.576	639.	0.479	608.	0.455
0.070	2.963	2.263	1.120	4.135	3.158	0.071	1269.	0.950	770.	0.577	640.	0.479	609.	0.456
0.066	2.850	2.178	1.116	4.136	3.161	0.067	1260.	0.943	771.	0.577	641.	0.479	609.	0.456
0.063	2.729	2.085	1.113	4.135	3.160	0.064	1249.	0.935	772.	0.578	641.	0.480	610.	0.457
0.058	2.593	1.981	1.108	4.137	3.161	0.059	1235.	0.924	773.	0.578	642.	0.480	611.	0.457
0.054	2.443	1.867	1.104	4.137	3.161	0.055	1214.	0.909	774.	0.579	643.	0.481	612.	0.458
0.050	2.283	1.744	1.100	4.136	3.161	0.051	1191.	0.891	775.	0.580	643.	0.481	613.	0.459
0.046	2.115	1.616	1.096	4.136	3.161	0.047	1163.	0.870	775.	0.580	644.	0.482	614.	0.460
0.042	1.940	1.484	1.092	4.138	3.164	0.043	1131.	0.846	776.	0.581	644.	0.482	615.	0.461
0.038	1.773	1.355	1.088	4.139	3.163	0.039	1099.	0.823	777.	0.582	645.	0.483	616.	0.461
0.032	1.613	1.233	1.082	4.147	3.169	0.033	1057.	0.791	778.	0.582	645.	0.483	617.	0.462
0.028	1.471	1.123	1.078	4.150	3.167	0.029	1018.	0.762	779.	0.583	646.	0.483	618.	0.463
0.024	1.345	1.026	1.074	4.156	3.170	0.025	975.	0.730	779.	0.583	646.	0.484	619.	0.464
0.019	1.232	0.939	1.069	4.160	3.171	0.020	932.	0.698	780.	0.584	647.	0.484	620.	0.464
0.015	1.135	0.864	1.065	4.162	3.170	0.016	888.	0.664	781.	0.585	648.	0.485	621.	0.465
0.010	1.052	0.800	1.060	4.167	3.169	0.011	814.	0.609	782.	0.585	648.	0.485	622.	0.466
0.008	0.981	0.745	1.058	4.168	3.168	0.009	774.	0.579	782.	0.586	649.	0.486	623.	0.466
0.007	0.926	0.703	1.057	4.177	3.173	0.008	744.	0.557	783.	0.586	649.	0.486	624.	0.467
0.007	0.812	0.615	1.057	4.186	3.169	0.008	769.	0.576	785.	0.588	651.	0.487	626.	0.469

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 ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
43.	139	7.92	150.6	1334.	24.98	5.02	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MC-INF	RE/FT	X	Y					
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)					
98.5	0.0165	1.338	0.723	3854.	0.451E-03	0.255E-05	0.682E 06	22.58	0.0					
X/L	L													
1.00	22.58													
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
1.298	4.763	3.569	2.348	1.217	0.910	1.299	1261.	0.945	528.	0.395	526.	0.395	541.	0.406
1.265	4.760	3.568	2.315	1.214	0.910	1.266	1260.	0.945	549.	0.412	535.	0.401	545.	0.408
1.230	4.754	3.565	2.280	1.214	0.911	1.231	1261.	0.945	552.	0.414	537.	0.402	545.	0.409
1.195	4.741	3.558	2.245	1.215	0.912	1.196	1261.	0.945	554.	0.415	537.	0.403	545.	0.409
1.161	4.722	3.544	2.211	1.214	0.911	1.162	1260.	0.945	557.	0.417	538.	0.403	546.	0.409
1.126	4.700	3.527	2.176	1.213	0.910	1.127	1260.	0.944	559.	0.419	539.	0.404	546.	0.409
1.091	4.676	3.509	2.141	1.214	0.911	1.092	1260.	0.945	562.	0.421	540.	0.405	546.	0.410
1.054	4.642	3.482	2.104	1.213	0.910	1.055	1260.	0.944	564.	0.423	541.	0.405	547.	0.410
1.018	4.609	3.459	2.068	1.213	0.910	1.019	1259.	0.944	566.	0.425	541.	0.406	547.	0.410
0.984	4.581	3.436	2.034	1.216	0.912	0.985	1259.	0.944	569.	0.426	543.	0.407	547.	0.410
0.951	4.553	3.415	2.001	1.217	0.913	0.952	1259.	0.944	571.	0.428	543.	0.407	548.	0.411
0.915	4.521	3.388	1.965	1.217	0.912	0.916	1259.	0.944	574.	0.430	544.	0.408	548.	0.411
0.881	4.486	3.364	1.931	1.230	0.923	0.882	1259.	0.944	576.	0.432	545.	0.409	548.	0.411
0.846	4.449	3.336	1.896	1.405	1.053	0.847	1258.	0.943	578.	0.433	546.	0.409	549.	0.411
0.810	4.412	3.309	1.860	2.709	2.032	0.811	1258.	0.943	580.	0.435	546.	0.410	549.	0.412
0.775	4.377	3.283	1.825	4.533	3.359	0.776	1258.	0.943	583.	0.437	547.	0.410	549.	0.412
0.739	4.346	3.260	1.789	4.615	3.461	0.740	1258.	0.943	585.	0.439	548.	0.411	550.	0.412
0.704	4.318	3.236	1.754	4.651	3.486	0.705	1258.	0.943	587.	0.440	549.	0.411	550.	0.412
0.666	4.290	3.217	1.716	4.697	3.522	0.667	1258.	0.943	589.	0.442	550.	0.412	550.	0.412
0.633	4.258	3.193	1.683	4.737	3.552	0.634	1258.	0.943	592.	0.444	550.	0.413	551.	0.413
0.597	4.213	3.160	1.647	4.780	3.585	0.598	1258.	0.943	594.	0.445	551.	0.413	551.	0.413
0.562	4.156	3.115	1.612	4.816	3.609	0.563	1258.	0.943	596.	0.447	552.	0.414	551.	0.413
0.523	4.083	3.062	1.573	4.853	3.640	0.524	1258.	0.943	598.	0.448	553.	0.414	552.	0.413
0.487	3.995	2.994	1.537	4.874	3.653	0.488	1259.	0.944	600.	0.450	553.	0.415	552.	0.414
0.452	3.903	2.927	1.502	4.881	3.661	0.453	1259.	0.944	602.	0.451	554.	0.415	552.	0.414
0.420	3.809	2.856	1.470	4.885	3.664	0.421	1260.	0.944	604.	0.453	555.	0.416	553.	0.414
0.385	3.714	2.783	1.435	4.877	3.655	0.386	1261.	0.945	606.	0.454	556.	0.417	553.	0.415
0.349	3.615	2.711	1.399	4.869	3.652	0.350	1261.	0.945	608.	0.456	556.	0.417	553.	0.415
0.314	3.514	2.635	1.364	4.857	3.643	0.315	1262.	0.946	610.	0.457	557.	0.418	554.	0.415
0.285	3.406	2.554	1.335	4.846	3.634	0.286	1263.	0.947	612.	0.459	558.	0.418	554.	0.415
0.276	3.318	2.490	1.326	4.840	3.633	0.277	1264.	0.947	614.	0.460	559.	0.419	554.	0.416
0.267	3.245	2.440	1.317	4.837	3.632	0.268	1265.	0.948	616.	0.462	559.	0.419	555.	0.416
0.259	3.189	2.395	1.309	4.828	3.626	0.260	1265.	0.948	618.	0.463	560.	0.420	555.	0.416
0.255	3.142	2.361	1.305	4.826	3.627	0.256	1265.	0.949	620.	0.465	560.	0.420	555.	0.416
0.252	3.108	2.336	1.302	4.824	3.625	0.253	1266.	0.949	622.	0.466	561.	0.421	556.	0.417
0.244	3.080	2.315	1.294	4.824	3.625	0.250	1265.	0.949	623.	0.467	562.	0.421	556.	0.417
0.246	3.055	2.297	1.296	4.822	3.626	0.247	1265.	0.948	625.	0.469	563.	0.422	556.	0.417
0.242	3.032	2.280	1.292	4.815	3.621	0.243	1266.	0.949	627.	0.470	563.	0.422	557.	0.417
0.239	3.008	2.264	1.289	4.816	3.624	0.240	1266.	0.949	629.	0.471	564.	0.423	557.	0.417
0.236	2.988	2.247	1.286	4.816	3.622	0.237	1266.	0.949	631.	0.473	564.	0.423	557.	0.418
0.234	2.965	2.231	1.284	4.813	3.622	0.235	1266.	0.949	632.	0.474	565.	0.424	558.	0.418
									634.	0.475	566.	0.424	558.	0.418



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ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
43.	139	7.92	149.5	1334.	25.01	4.99	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	ML-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
58.5	0.0164	1.328	0.718	3854.	0.448E-03	0.255E-05	0.677E 06	22.58	0.0	1.00	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.231	2.941	2.215	1.261	4.808	3.620	0.232	1266.	0.949	636.	0.477	567.	0.425	558.	0.418
0.228	2.920	2.199	1.278	4.807	3.619	0.229	1266.	0.949	637.	0.478	567.	0.425	558.	0.419
0.225	2.900	2.183	1.275	4.804	3.618	0.226	1266.	0.949	639.	0.479	568.	0.426	559.	0.419
0.221	2.877	2.167	1.271	4.802	3.618	0.222	1266.	0.949	641.	0.480	569.	0.426	559.	0.419
0.219	2.850	2.147	1.269	4.802	3.618	0.220	1266.	0.949	642.	0.481	569.	0.427	559.	0.419
0.216	2.826	2.130	1.266	4.799	3.619	0.217	1266.	0.949	644.	0.483	570.	0.427	560.	0.420
0.213	2.799	2.113	1.263	4.795	3.620	0.214	1265.	0.949	645.	0.484	570.	0.428	560.	0.420
0.210	2.774	2.094	1.260	4.792	3.618	0.211	1266.	0.949	647.	0.485	571.	0.428	560.	0.420
0.206	2.743	2.071	1.256	4.789	3.616	0.207	1265.	0.949	649.	0.486	572.	0.428	561.	0.420
0.203	2.712	2.049	1.253	4.785	3.615	0.204	1265.	0.949	650.	0.487	572.	0.429	561.	0.421
0.199	2.676	2.022	1.249	4.778	3.610	0.200	1265.	0.948	652.	0.489	573.	0.430	561.	0.421
0.196	2.640	1.996	1.246	4.782	3.615	0.197	1264.	0.948	653.	0.490	574.	0.430	562.	0.421
0.192	2.605	1.971	1.242	4.779	3.616	0.193	1264.	0.948	655.	0.491	574.	0.430	562.	0.421
0.188	2.567	1.942	1.238	4.773	3.611	0.189	1264.	0.947	656.	0.492	575.	0.431	562.	0.421
0.185	2.523	1.910	1.235	4.770	3.611	0.186	1263.	0.947	658.	0.493	576.	0.431	563.	0.422
0.181	2.480	1.878	1.231	4.767	3.611	0.182	1262.	0.946	659.	0.494	576.	0.432	563.	0.422
0.177	2.431	1.841	1.227	4.764	3.609	0.178	1261.	0.945	661.	0.495	577.	0.432	563.	0.422
0.173	2.383	1.807	1.223	4.762	3.610	0.174	1260.	0.945	662.	0.496	577.	0.433	564.	0.422
0.169	2.333	1.768	1.219	4.758	3.607	0.170	1258.	0.943	663.	0.497	578.	0.433	564.	0.423
0.165	2.283	1.730	1.215	4.758	3.607	0.166	1256.	0.942	665.	0.498	578.	0.434	564.	0.423
0.162	2.232	1.692	1.212	4.758	3.607	0.163	1254.	0.940	666.	0.499	579.	0.434	564.	0.423
0.159	2.180	1.652	1.209	4.755	3.604	0.160	1252.	0.938	668.	0.500	580.	0.435	565.	0.423
0.156	2.129	1.613	1.206	4.754	3.601	0.157	1248.	0.936	669.	0.501	580.	0.435	565.	0.424
0.153	2.080	1.577	1.203	4.754	3.604	0.154	1245.	0.933	670.	0.502	581.	0.435	565.	0.424
0.151	2.025	1.535	1.201	4.749	3.600	0.152	1242.	0.931	672.	0.503	581.	0.436	566.	0.424
0.148	1.973	1.496	1.198	4.746	3.597	0.149	1238.	0.928	673.	0.504	582.	0.436	566.	0.424
0.144	1.920	1.456	1.194	4.747	3.598	0.145	1233.	0.925	674.	0.505	583.	0.437	566.	0.424
0.142	1.871	1.418	1.192	4.745	3.597	0.143	1228.	0.921	675.	0.507	583.	0.437	567.	0.425
0.139	1.819	1.379	1.189	4.745	3.597	0.140	1224.	0.918	677.	0.508	584.	0.438	567.	0.425
0.136	1.769	1.341	1.186	4.743	3.595	0.137	1217.	0.913	678.	0.509	584.	0.438	567.	0.426
0.133	1.722	1.305	1.183	4.744	3.596	0.134	1211.	0.909	679.	0.510	585.	0.439	568.	0.426
0.131	1.670	1.266	1.181	4.739	3.592	0.132	1205.	0.904	681.	0.511	586.	0.439	568.	0.426
0.128	1.623	1.230	1.178	4.739	3.593	0.129	1197.	0.898	682.	0.511	586.	0.440	568.	0.426
0.125	1.571	1.192	1.175	4.736	3.592	0.126	1189.	0.892	683.	0.512	587.	0.440	568.	0.426
0.121	1.523	1.154	1.171	4.739	3.593	0.122	1179.	0.884	684.	0.513	587.	0.440	569.	0.427
0.118	1.469	1.114	1.168	4.731	3.586	0.119	1168.	0.876	686.	0.514	588.	0.441	569.	0.427
0.115	1.417	1.074	1.165	4.729	3.585	0.116	1158.	0.869	687.	0.515	588.	0.441	569.	0.427
0.112	1.368	1.037	1.162	4.728	3.584	0.113	1147.	0.861	688.	0.516	589.	0.442	570.	0.427
0.109	1.318	0.999	1.159	4.728	3.584	0.110	1134.	0.851	689.	0.517	589.	0.442	570.	0.428
0.105	1.268	0.960	1.155	4.723	3.578	0.106	1121.	0.841	690.	0.518	590.	0.443	570.	0.428
0.102	1.220	0.924	1.152	4.721	3.576	0.103	1107.	0.831	692.	0.519	591.	0.443	571.	0.428
0.098	1.174	0.889	1.148	4.718	3.574	0.099	1092.	0.819	693.	0.520	591.	0.443	571.	0.428

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 ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
43.	139	7.92	168.7	1333.	25.01	4.99	30.00	180.00	0					
T-INF (DEG K)	P-INF (PSIA)	PO1 (PSIA)	G-INF (PSIA)	U-INF (F1/SEC)	RHC-INF (LBM/F13)	PL-INF (LBM/F1-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.4	0.0163	1.320	0.714	3853.	0.445E-03	0.255E-05	0.674E 06	22.58	0.0	1.00	22.58			
ZP1 (IN)	PP1 (PSIA)	FP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.095	1.125	0.852	1.145	4.717	3.573	0.096	1076.	0.807	694.	0.520	592.	0.444	571.	0.428
0.091	1.079	0.817	1.141	4.716	3.573	0.092	1062.	0.796	695.	0.521	592.	0.444	571.	0.429
0.088	1.034	0.783	1.138	4.716	3.573	0.089	1048.	0.786	696.	0.522	593.	0.445	572.	0.429
0.085	0.992	0.752	1.135	4.714	3.571	0.086	1033.	0.775	697.	0.523	593.	0.445	572.	0.429
0.083	0.951	0.720	1.133	4.711	3.567	0.084	1020.	0.765	698.	0.524	594.	0.445	572.	0.429
0.080	0.911	0.690	1.130	4.709	3.567	0.081	1006.	0.755	700.	0.525	595.	0.446	573.	0.430
0.077	0.876	0.663	1.127	4.706	3.563	0.078	995.	0.746	701.	0.526	595.	0.446	573.	0.430
0.073	0.843	0.638	1.123	4.707	3.563	0.074	982.	0.737	702.	0.526	595.	0.447	573.	0.430
0.071	0.812	0.615	1.121	4.705	3.562	0.072	968.	0.726	703.	0.527	596.	0.447	573.	0.430
0.067	0.776	0.587	1.117	4.701	3.559	0.068	955.	0.716	704.	0.528	597.	0.448	574.	0.430
0.065	0.746	0.564	1.115	4.700	3.556	0.066	942.	0.706	705.	0.529	597.	0.448	574.	0.431
0.062	0.715	0.542	1.112	4.701	3.559	0.063	930.	0.697	706.	0.530	598.	0.448	574.	0.431
0.059	0.687	0.520	1.109	4.695	3.552	0.060	917.	0.688	707.	0.530	598.	0.449	575.	0.431
0.055	0.660	0.500	1.105	4.692	3.552	0.056	905.	0.679	708.	0.531	599.	0.449	575.	0.431
0.053	0.637	0.482	1.103	4.691	3.549	0.054	892.	0.669	709.	0.532	599.	0.450	575.	0.432
0.050	0.612	0.463	1.100	4.689	3.550	0.051	879.	0.660	710.	0.533	600.	0.450	576.	0.432
0.047	0.585	0.443	1.097	4.686	3.547	0.048	867.	0.650	711.	0.534	601.	0.450	576.	0.432
0.044	0.564	0.427	1.094	4.682	3.545	0.045	855.	0.641	712.	0.534	601.	0.451	576.	0.432
0.041	0.540	0.409	1.091	4.678	3.541	0.042	844.	0.633	713.	0.535	601.	0.451	576.	0.432
0.038	0.522	0.396	1.088	4.676	3.542	0.039	832.	0.624	714.	0.536	602.	0.451	577.	0.433
0.035	0.506	0.383	1.085	4.675	3.542	0.036	819.	0.615	715.	0.537	602.	0.452	577.	0.433
0.032	0.485	0.368	1.082	4.673	3.540	0.033	808.	0.606	716.	0.537	603.	0.452	577.	0.433
0.030	0.468	0.354	1.080	4.669	3.537	0.031	798.	0.599	717.	0.538	604.	0.453	577.	0.433
0.027	0.451	0.342	1.077	4.667	3.535	0.028	788.	0.591	718.	0.539	604.	0.453	578.	0.433
0.024	0.437	0.331	1.074	4.661	3.531	0.025	777.	0.583	719.	0.540	604.	0.453	578.	0.434
0.020	0.421	0.319	1.070	4.655	3.526	0.021	766.	0.574	720.	0.540	605.	0.454	578.	0.434
0.017	0.412	0.312	1.067	4.659	3.529	0.018	754.	0.566	721.	0.541	605.	0.454	579.	0.434
0.015	0.396	0.300	1.065	4.653	3.527	0.016	744.	0.558	722.	0.542	606.	0.455	579.	0.434
0.011	0.384	0.291	1.061	4.648	3.526	0.012	732.	0.549	723.	0.542	607.	0.455	579.	0.434
0.008	0.374	0.284	1.058	4.646	3.522	0.009	717.	0.538	724.	0.543	607.	0.455	579.	0.435
0.006	0.362	0.274	1.056	4.644	3.520	0.007	700.	0.525	725.	0.544	608.	0.456	580.	0.435
0.007	0.348	0.264	1.057	4.643	3.522	0.008	701.	0.526	727.	0.545	608.	0.456	580.	0.435

DATE = 9-26-73  
PROJECT NUMBER VA353-218A  
ARO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/RI ORG SHUTTLE TEST  
PAGE 2.1

GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
44.	139	7.92	149.8	1332.	24.99	5.01	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RMU-INF (LDM/FT3)	PU-INF (LEM/FT-SEC)	RE/FT (FT=1)	X (IN)	Y (IN)	X/L	L (IN)			
98.3	0.0164	1.330	0.719	3851.	0.449E-03	0.255E-05	0.679E 06	20.32	0.0	0.90	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	Z12 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
			2.370	1.213	0.912	1.321	1258.	0.944	539.	0.405	525.	0.394	534.	0.401
1.315	4.527	3.425	2.365	1.206	0.912	1.316	1258.	0.945	562.	0.422	535.	0.401	538.	0.404
1.282	4.533	3.430	2.332	1.207	0.913	1.283	1258.	0.945	564.	0.423	535.	0.402	539.	0.404
1.247	4.544	3.438	2.297	1.208	0.914	1.248	1258.	0.945	566.	0.425	536.	0.403	539.	0.405
1.214	4.554	3.443	2.264	1.209	0.914	1.215	1258.	0.945	569.	0.427	537.	0.403	539.	0.405
1.179	4.566	3.452	2.229	1.208	0.913	1.180	1258.	0.945	571.	0.429	538.	0.404	540.	0.405
1.143	4.584	3.466	2.193	1.209	0.914	1.144	1258.	0.945	573.	0.430	539.	0.404	540.	0.405
1.110	4.610	3.483	2.160	1.210	0.914	1.111	1258.	0.944	576.	0.432	540.	0.405	540.	0.406
1.074	4.633	3.503	2.124	1.208	0.913	1.075	1258.	0.944	578.	0.434	541.	0.406	541.	0.406
1.039	4.660	3.523	2.089	1.209	0.914	1.040	1258.	0.944	580.	0.435	541.	0.406	541.	0.406
1.004	4.690	3.545	2.054	1.210	0.915	1.005	1258.	0.945	582.	0.437	542.	0.407	541.	0.406
0.971	4.727	3.573	2.021	1.209	0.914	0.972	1258.	0.944	585.	0.439	543.	0.408	542.	0.407
0.936	4.764	3.601	1.986	1.207	0.912	0.937	1258.	0.945	587.	0.441	544.	0.408	542.	0.407
0.902	4.805	3.635	1.952	1.208	0.914	0.903	1258.	0.944	589.	0.442	544.	0.409	542.	0.407
0.867	4.850	3.669	1.917	1.207	0.913	0.868	1258.	0.944	591.	0.444	545.	0.409	543.	0.407
0.831	4.893	3.704	1.881	1.205	0.912	0.832	1258.	0.944	593.	0.445	546.	0.410	543.	0.408
0.796	4.935	3.736	1.846	1.206	0.913	0.797	1257.	0.944	595.	0.447	547.	0.410	543.	0.408
0.761	4.969	3.761	1.811	1.207	0.914	0.762	1258.	0.944	598.	0.449	547.	0.411	544.	0.408
0.726	4.994	3.785	1.776	1.206	0.914	0.727	1257.	0.944	600.	0.450	548.	0.412	544.	0.408
0.691	5.014	3.801	1.741	1.205	0.913	0.692	1257.	0.944	602.	0.452	549.	0.412	544.	0.409
0.653	5.033	3.815	1.703	1.204	0.913	0.654	1257.	0.944	604.	0.453	550.	0.413	545.	0.409
0.617	5.052	3.832	1.667	1.204	0.913	0.618	1257.	0.944	606.	0.455	550.	0.413	545.	0.409
0.586	5.072	3.850	1.636	1.204	0.914	0.587	1257.	0.944	608.	0.456	551.	0.414	545.	0.409
0.550	5.088	3.865	1.600	1.215	0.923	0.551	1257.	0.945	610.	0.458	552.	0.415	546.	0.410
0.515	5.079	3.858	1.565	1.361	1.034	0.516	1257.	0.945	612.	0.460	553.	0.415	546.	0.410
0.479	5.036	3.828	1.529	2.632	2.000	0.480	1257.	0.945	614.	0.461	553.	0.416	546.	0.411
0.445	4.957	3.770	1.495	4.465	3.396	0.446	1258.	0.945	615.	0.462	554.	0.416	547.	0.411
0.409	4.860	3.696	1.459	4.522	3.439	0.410	1258.	0.945	617.	0.464	555.	0.417	547.	0.411
0.374	4.746	3.607	1.424	4.541	3.451	0.375	1259.	0.946	619.	0.465	556.	0.417	548.	0.412
			1.389	4.557	3.463	0.340	1259.	0.946	621.	0.467	556.	0.418	548.	0.412
			1.364	4.564	3.466	0.315	1260.	0.947	623.	0.468	557.	0.418	549.	0.412
			1.355	4.575	3.472	0.306	1260.	0.947	625.	0.469	557.	0.419	549.	0.413
			1.346	4.577	3.474	0.297	1261.	0.947	626.	0.471	558.	0.419	550.	0.413
0.292	4.229	3.210	1.342	4.581	3.477	0.293	1261.	0.947	628.	0.472	559.	0.420	550.	0.413
0.289	4.195	3.184	1.339	4.582	3.478	0.290	1260.	0.947	630.	0.473	559.	0.420	551.	0.414
0.287	4.171	3.166	1.337	4.585	3.480	0.288	1261.	0.947	632.	0.475	560.	0.421	551.	0.414
0.283	4.147	3.146	1.333	4.587	3.479	0.284	1260.	0.947	633.	0.476	561.	0.421	551.	0.414
0.279	4.124	3.130	1.329	4.586	3.481	0.280	1260.	0.947	635.	0.477	562.	0.422	552.	0.414
0.274	4.097	3.110	1.324	4.585	3.480	0.275	1261.	0.947	637.	0.478	562.	0.423	552.	0.415
0.271	4.073	3.094	1.321	4.592	3.488	0.272	1261.	0.947	638.	0.480	563.	0.423	552.	0.415
0.269	4.054	3.077	1.319	4.591	3.485	0.270	1261.	0.948	640.	0.481	563.	0.423	553.	0.415
0.265	4.033	3.061	1.315	4.594	3.487	0.266	1261.	0.948	642.	0.482	564.	0.424	553.	0.416

DATE = 9-20-73  
 PROJECT NUMBER VA353-218A  
 ARJ, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/RI OH9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PC(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
44.	139	7.92	148.3	1331.	25.01	4.99	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	NU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.3	0.0162	1.317	0.712	3850.	0.445E-03	0.254E-05	0.673E 06	20.32	0.0	0.90	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.263	4.011	3.047	1.313	4.596	3.491	0.264	1261.	0.948	643.	0.483	565.	0.424	553.	0.416
0.260	3.991	3.031	1.310	4.590	3.486	0.261	1261.	0.947	645.	0.484	566.	0.425	554.	0.416
0.257	3.972	3.017	1.307	4.592	3.488	0.258	1262.	0.948	646.	0.486	566.	0.425	554.	0.416
0.254	3.951	3.001	1.304	4.595	3.490	0.255	1262.	0.948	648.	0.487	567.	0.426	555.	0.417
0.251	3.929	2.984	1.301	4.594	3.489	0.252	1262.	0.948	649.	0.488	567.	0.426	555.	0.417
0.249	3.911	2.971	1.299	4.591	3.487	0.250	1262.	0.948	651.	0.489	568.	0.427	555.	0.417
0.245	3.892	2.958	1.295	4.592	3.490	0.246	1262.	0.948	652.	0.490	569.	0.427	556.	0.417
0.242	3.870	2.944	1.292	4.592	3.493	0.243	1262.	0.949	654.	0.491	569.	0.428	556.	0.418
0.240	3.844	2.924	1.290	4.590	3.491	0.241	1263.	0.949	655.	0.492	570.	0.428	556.	0.418
0.236	3.822	2.905	1.286	4.596	3.493	0.237	1263.	0.949	657.	0.493	571.	0.429	557.	0.418
0.233	3.802	2.890	1.283	4.599	3.495	0.234	1264.	0.949	658.	0.495	571.	0.429	557.	0.419
0.230	3.781	2.872	1.280	4.606	3.498	0.231	1264.	0.950	660.	0.496	572.	0.429	557.	0.419
0.227	3.756	2.851	1.277	4.609	3.498	0.228	1264.	0.949	661.	0.497	572.	0.430	558.	0.419
0.224	3.732	2.831	1.274	4.609	3.496	0.225	1264.	0.949	663.	0.498	573.	0.431	558.	0.419
0.221	3.710	2.814	1.271	4.613	3.499	0.222	1264.	0.949	664.	0.499	574.	0.431	559.	0.420
0.218	3.686	2.794	1.268	4.613	3.497	0.219	1264.	0.950	665.	0.500	574.	0.431	559.	0.420
0.215	3.662	2.778	1.265	4.621	3.505	0.216	1264.	0.950	667.	0.501	575.	0.432	559.	0.420
0.213	3.640	2.759	1.263	4.621	3.503	0.214	1265.	0.950	668.	0.502	575.	0.432	560.	0.420
0.210	3.615	2.738	1.260	4.622	3.501	0.211	1264.	0.950	670.	0.503	576.	0.433	560.	0.421
0.207	3.587	2.717	1.257	4.625	3.503	0.208	1265.	0.950	671.	0.504	577.	0.433	561.	0.421
0.203	3.560	2.697	1.253	4.624	3.503	0.204	1265.	0.950	672.	0.505	577.	0.434	561.	0.421
0.201	3.536	2.677	1.251	4.629	3.504	0.202	1265.	0.950	673.	0.506	578.	0.434	561.	0.422
0.198	3.509	2.658	1.248	4.629	3.506	0.199	1266.	0.951	675.	0.507	578.	0.435	562.	0.422
0.195	3.483	2.636	1.245	4.632	3.506	0.196	1266.	0.951	676.	0.508	579.	0.435	562.	0.423
0.192	3.458	2.617	1.242	4.636	3.509	0.193	1266.	0.951	677.	0.509	579.	0.435	563.	0.423
0.190	3.431	2.597	1.240	4.629	3.504	0.191	1265.	0.951	679.	0.510	580.	0.436	563.	0.423
0.187	3.406	2.578	1.237	4.630	3.505	0.188	1266.	0.951	680.	0.511	581.	0.436	564.	0.424
0.185	3.376	2.558	1.235	4.632	3.509	0.186	1266.	0.951	681.	0.512	581.	0.437	565.	0.424
0.182	3.351	2.539	1.232	4.638	3.513	0.183	1266.	0.951	682.	0.513	582.	0.437	565.	0.425
0.179	3.325	2.519	1.229	4.634	3.510	0.180	1266.	0.951	684.	0.514	582.	0.438	566.	0.425
0.176	3.297	2.498	1.226	4.635	3.511	0.177	1266.	0.951	685.	0.515	583.	0.438	566.	0.425
0.173	3.265	2.472	1.223	4.637	3.510	0.174	1266.	0.951	686.	0.515	583.	0.438	567.	0.426
0.170	3.231	2.448	1.220	4.637	3.512	0.171	1266.	0.951	687.	0.516	584.	0.439	568.	0.427
0.167	3.198	2.423	1.217	4.636	3.512	0.168	1266.	0.951	688.	0.517	585.	0.439	568.	0.427
0.165	3.165	2.399	1.215	4.638	3.516	0.166	1265.	0.951	690.	0.518	585.	0.440	569.	0.428
0.162	3.127	2.371	1.212	4.638	3.516	0.163	1265.	0.950	691.	0.519	586.	0.440	570.	0.428
0.159	3.086	2.339	1.209	4.637	3.515	0.160	1265.	0.951	692.	0.520	586.	0.441	571.	0.429
0.156	3.051	2.311	1.206	4.637	3.512	0.157	1265.	0.950	693.	0.521	587.	0.441	572.	0.429
0.153	3.012	2.283	1.203	4.638	3.516	0.154	1264.	0.950	694.	0.522	587.	0.441	572.	0.430
0.151	2.968	2.251	1.201	4.638	3.518	0.152	1265.	0.950	695.	0.522	588.	0.442	573.	0.431
0.148	2.926	2.218	1.198	4.639	3.517	0.149	1264.	0.950	697.	0.523	589.	0.442	574.	0.431
0.145	2.878	2.182	1.195	4.640	3.517	0.146	1263.	0.949	698.	0.524	589.	0.443	575.	0.432

ORIGINAL PAGE IS  
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DATE \* 9-20-73  
PROJECT NUMBER VA353-218A  
ARU, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/RI OH9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
44.	139	7.92	148.6	1331.	25.01	4.99	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	U-INF (PSIA)	U-INF (FT/SEC)	HMO-INF (LBM/FT3)	ML-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
58.3	0.0162	1.319	0.713	3850.	0.446E-03	0.254E-05	0.675E 06	20.32	0.0	0.90	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/PC1	Z12 (IN)	I12 (DEG R)	IT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.143	2.828	2.144	1.193	4.641	3.518	0.144	1263.	0.949	699.	0.525	590.	0.443	578.	0.433
0.139	2.781	2.110	1.189	4.639	3.519	0.140	1262.	0.948	700.	0.526	590.	0.444	577.	0.433
0.137	2.730	2.071	1.187	4.643	3.522	0.138	1262.	0.948	701.	0.527	591.	0.444	578.	0.434
0.135	2.677	2.029	1.185	4.644	3.520	0.136	1260.	0.947	702.	0.527	591.	0.444	579.	0.435
0.131	2.621	1.988	1.181	4.642	3.521	0.132	1258.	0.945	703.	0.528	592.	0.445	580.	0.436
0.129	2.582	1.943	1.179	4.648	3.525	0.130	1257.	0.945	704.	0.529	592.	0.445	581.	0.436
0.126	2.506	1.901	1.176	4.650	3.527	0.127	1255.	0.943	705.	0.530	593.	0.446	582.	0.437
0.124	2.444	1.854	1.174	4.647	3.525	0.125	1253.	0.942	706.	0.531	594.	0.446	583.	0.438
0.120	2.382	1.807	1.170	4.650	3.527	0.121	1250.	0.939	707.	0.532	594.	0.446	584.	0.439
0.118	2.316	1.757	1.168	4.653	3.529	0.119	1246.	0.936	708.	0.532	595.	0.447	585.	0.440
0.115	2.245	1.704	1.165	4.654	3.532	0.116	1242.	0.933	709.	0.533	595.	0.447	586.	0.440
0.112	2.171	1.646	1.162	4.652	3.529	0.113	1237.	0.930	711.	0.534	596.	0.448	587.	0.441
0.109	2.096	1.591	1.159	4.655	3.533	0.110	1231.	0.925	712.	0.535	596.	0.448	588.	0.442
0.105	2.022	1.535	1.155	4.659	3.537	0.106	1223.	0.919	713.	0.535	597.	0.448	590.	0.443
0.103	1.939	1.472	1.153	4.661	3.538	0.104	1215.	0.913	714.	0.536	597.	0.449	591.	0.444
0.101	1.862	1.414	1.151	4.663	3.539	0.102	1207.	0.907	715.	0.537	598.	0.449	592.	0.445
0.098	1.789	1.359	1.148	4.663	3.542	0.099	1198.	0.900	716.	0.538	598.	0.450	593.	0.446
0.095	1.717	1.304	1.145	4.667	3.545	0.096	1189.	0.893	716.	0.538	599.	0.450	595.	0.447
0.093	1.646	1.250	1.143	4.666	3.544	0.094	1180.	0.886	717.	0.539	599.	0.450	596.	0.448
0.090	1.579	1.200	1.140	4.668	3.548	0.091	1169.	0.878	718.	0.540	600.	0.451	597.	0.449
0.086	1.511	1.148	1.136	4.667	3.545	0.087	1156.	0.869	719.	0.541	601.	0.451	599.	0.450
0.084	1.445	1.098	1.134	4.670	3.549	0.085	1143.	0.859	720.	0.541	601.	0.452	600.	0.451
0.081	1.380	1.048	1.131	4.673	3.549	0.082	1129.	0.849	721.	0.542	602.	0.452	602.	0.452
0.078	1.315	0.994	1.128	4.676	3.554	0.079	1114.	0.837	722.	0.543	602.	0.452	604.	0.453
0.075	1.254	0.923	1.125	4.676	3.554	0.076	1098.	0.825	723.	0.543	603.	0.453	606.	0.455
0.072	1.194	0.807	1.122	4.678	3.555	0.073	1083.	0.813	724.	0.544	603.	0.453	608.	0.456
0.069	1.136	0.864	1.119	4.678	3.558	0.070	1069.	0.803	725.	0.545	604.	0.454	610.	0.458
0.067	1.084	0.824	1.117	4.680	3.557	0.068	1055.	0.793	726.	0.545	604.	0.454	611.	0.459
0.063	1.035	0.787	1.113	4.682	3.561	0.064	1037.	0.779	727.	0.546	605.	0.454	614.	0.461
0.059	0.982	0.747	1.109	4.681	3.560	0.060	1020.	0.766	728.	0.547	605.	0.455	616.	0.463
0.056	0.934	0.710	1.106	4.685	3.563	0.057	1001.	0.752	729.	0.547	606.	0.455	618.	0.464
0.053	0.889	0.676	1.103	4.687	3.567	0.054	985.	0.740	730.	0.548	606.	0.455	620.	0.466
0.050	0.840	0.644	1.100	4.690	3.570	0.051	967.	0.727	730.	0.549	607.	0.456	622.	0.467
0.047	0.804	0.612	1.097	4.687	3.567	0.048	952.	0.715	731.	0.549	607.	0.456	624.	0.469
0.044	0.765	0.583	1.094	4.691	3.570	0.045	936.	0.704	732.	0.550	608.	0.457	626.	0.470
0.041	0.731	0.557	1.091	4.693	3.574	0.042	920.	0.691	733.	0.551	608.	0.457	628.	0.472
0.037	0.700	0.533	1.087	4.696	3.574	0.038	901.	0.677	734.	0.551	609.	0.457	630.	0.473
0.034	0.668	0.509	1.084	4.696	3.576	0.035	884.	0.664	735.	0.552	609.	0.458	632.	0.475
0.031	0.640	0.487	1.081	4.699	3.579	0.032	865.	0.650	736.	0.553	610.	0.458	634.	0.476
0.026	0.612	0.467	1.076	4.696	3.580	0.027	847.	0.636	736.	0.553	610.	0.459	636.	0.478
0.024	0.584	0.445	1.074	4.699	3.581	0.025	831.	0.624	737.	0.554	611.	0.459	638.	0.479
0.020	0.561	0.427	1.070	4.702	3.584	0.021	814.	0.612	738.	0.555	611.	0.459	639.	0.480

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 ARO, INC.  
 ARNOLD-AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO.	PC (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
44.	139	7.92	147.7	1331.	25.01	4.99	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	HMO-INF	PL-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LPM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.3	0.0161	1.311	0.709	3050.	0.443E-03	0.254E-05	0.671E 06	20.32	0.0	0.90	22.58			
ZP1	PF1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.015	0.539	0.411	1.065	4.704	3.587	0.016	796.	0.598	739.	0.555	612.	0.460	641.	0.481
0.013	0.519	0.396	1.063	4.705	3.588	0.014	741.	0.556	740.	0.556	612.	0.460	642.	0.482
0.010	0.498	0.380	1.060	4.706	3.589	0.011	752.	0.565	741.	0.556	613.	0.460	643.	0.483
0.007	0.482	0.368	1.057	4.710	3.592	0.008	733.	0.551	741.	0.557	613.	0.461	644.	0.484
0.007	0.431	0.329	1.057	4.702	3.588	0.008	725.	0.545	744.	0.559	615.	0.462	648.	0.487

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OF POOR QUALITY

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ARO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/RI 0M9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PC (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
45.	139	7.92	148.9	1330.	25.01	4.99	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	KHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
58.2	0.0163	1.322	0.715	3848.	0.4475-03	0.254E-05	0.677E 06	18.06	0.0	0.80	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
			2.349	1.204	0.911	1.300	1257.	0.945	554.	0.416	546.	0.410	549.	0.413
			2.348	1.202	0.909	1.299	1256.	0.945	556.	0.418	547.	0.411	550.	0.413
1.295	4.472	3.388	2.345	1.202	0.910	1.298	1256.	0.945	577.	0.434	555.	0.417	553.	0.416
1.261	4.480	3.394	2.311	1.203	0.911	1.262	1257.	0.945	580.	0.436	556.	0.418	553.	0.416
1.227	4.457	3.407	2.277	1.204	0.912	1.228	1256.	0.945	582.	0.438	557.	0.419	554.	0.416
1.192	4.516	3.419	2.242	1.205	0.912	1.193	1256.	0.945	585.	0.440	558.	0.419	554.	0.417
1.158	4.534	3.435	2.208	1.204	0.912	1.159	1256.	0.945	587.	0.441	559.	0.420	554.	0.417
1.122	4.552	3.446	2.172	1.206	0.913	1.123	1256.	0.945	589.	0.443	559.	0.421	555.	0.417
1.087	4.569	3.459	2.137	1.206	0.913	1.088	1256.	0.945	592.	0.445	560.	0.421	555.	0.418
1.051	4.588	3.474	2.101	1.205	0.912	1.052	1256.	0.945	594.	0.447	561.	0.422	556.	0.418
1.016	4.611	3.491	2.066	1.206	0.913	1.017	1256.	0.945	597.	0.449	562.	0.423	556.	0.418
0.981	4.634	3.508	2.031	1.206	0.913	0.982	1256.	0.945	599.	0.451	562.	0.423	556.	0.419
0.947	4.657	3.528	1.997	1.207	0.915	0.948	1256.	0.945	601.	0.452	563.	0.424	556.	0.419
0.912	4.681	3.546	1.962	1.205	0.913	0.913	1256.	0.945	603.	0.454	564.	0.424	557.	0.419
0.878	4.714	3.571	1.928	1.206	0.913	0.879	1256.	0.945	605.	0.456	565.	0.425	557.	0.419
0.842	4.743	3.593	1.892	1.205	0.913	0.843	1256.	0.945	608.	0.457	566.	0.426	558.	0.420
0.806	4.764	3.609	1.856	1.204	0.912	0.807	1255.	0.944	610.	0.459	567.	0.426	558.	0.420
0.771	4.785	3.627	1.821	1.204	0.913	0.772	1255.	0.945	612.	0.461	567.	0.427	559.	0.420
0.736	4.805	3.645	1.786	1.206	0.915	0.737	1255.	0.945	614.	0.462	568.	0.427	559.	0.421
0.700	4.821	3.657	1.750	1.204	0.913	0.701	1255.	0.944	617.	0.464	569.	0.428	560.	0.421
0.664	4.838	3.672	1.714	1.204	0.914	0.665	1255.	0.944	619.	0.466	569.	0.428	561.	0.422
0.629	4.858	3.687	1.679	1.203	0.913	0.630	1255.	0.944	621.	0.467	570.	0.429	561.	0.422
0.593	4.886	3.714	1.643	1.204	0.915	0.594	1255.	0.944	623.	0.469	571.	0.429	562.	0.423
0.557	4.919	3.739	1.607	1.203	0.914	0.558	1254.	0.944	625.	0.470	571.	0.430	562.	0.423
0.518	4.938	3.756	1.568	1.201	0.914	0.519	1255.	0.944	627.	0.472	572.	0.431	563.	0.423
0.486	4.934	3.755	1.536	1.201	0.914	0.487	1255.	0.944	629.	0.473	573.	0.431	563.	0.424
0.450	4.908	3.738	1.500	1.202	0.916	0.451	1255.	0.944	631.	0.475	573.	0.431	563.	0.424
0.414	4.850	3.696	1.464	1.198	0.913	0.415	1255.	0.944	633.	0.476	574.	0.432	563.	0.424
0.379	4.783	3.645	1.429	1.201	0.915	0.380	1256.	0.945	635.	0.477	575.	0.433	564.	0.424
0.344	4.709	3.591	1.394	1.259	0.961	0.345	1257.	0.946	636.	0.479	575.	0.433	564.	0.424
0.308	4.614	3.522	1.358	2.033	1.552	0.309	1257.	0.946	638.	0.480	576.	0.434	564.	0.424
			1.323	4.150	3.171	0.274	1259.	0.947	640.	0.482	577.	0.434	564.	0.425
0.258	4.413	3.372	1.308	4.517	3.452	0.259	1259.	0.947	642.	0.483	577.	0.434	565.	0.425
0.248	4.346	3.324	1.298	4.507	3.447	0.249	1259.	0.948	644.	0.484	578.	0.435	565.	0.425
0.239	4.250	3.283	1.289	4.502	3.445	0.240	1260.	0.948	645.	0.486	579.	0.436	566.	0.426
0.235	4.253	3.257	1.285	4.498	3.445	0.236	1260.	0.948	647.	0.487	579.	0.436	566.	0.426
0.231	4.225	3.238	1.281	4.497	3.446	0.232	1260.	0.948	649.	0.488	580.	0.436	566.	0.426
0.228	4.200	3.221	1.278	4.499	3.450	0.229	1260.	0.948	651.	0.490	581.	0.437	567.	0.427
0.224	4.175	3.204	1.274	4.496	3.450	0.225	1261.	0.949	652.	0.491	581.	0.437	567.	0.427
0.220	4.152	3.186	1.270	4.494	3.449	0.221	1261.	0.949	654.	0.492	582.	0.438	568.	0.427
0.216	4.128	3.172	1.266	4.492	3.451	0.217	1261.	0.949	656.	0.493	583.	0.438	568.	0.428
0.211	4.100	3.153	1.261	4.490	3.453	0.212	1261.	0.949	657.	0.495	583.	0.439	569.	0.428

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 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/KI OH-9 SHUTTLE TEST  
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GRUP	MODEL	MACH NO	PG(PSIA)	TC(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
45.	139	7.92	146.5	1329.	25.04	4.98	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	RHO-INF	PL-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LB/M/FT3)	(LB/M/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.1	0.0160	1.301	0.703	3847.	0.440E-03	0.254E-05	0.667E 06	18.06	0.0	0.80	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.208	4.075	3.133	1.258	4.494	3.455	0.204	1262.	0.949	656.	0.496	584.	0.439	569.	0.428
0.204	4.046	3.115	1.254	4.489	3.457	0.205	1262.	0.949	660.	0.497	584.	0.440	570.	0.429
0.201	4.024	3.100	1.251	4.492	3.461	0.202	1262.	0.949	662.	0.498	585.	0.440	570.	0.429
0.197	3.996	3.079	1.247	4.487	3.457	0.198	1262.	0.950	664.	0.499	586.	0.441	570.	0.429
0.194	3.971	3.067	1.244	4.490	3.462	0.195	1263.	0.950	665.	0.500	586.	0.441	571.	0.430
0.191	3.946	3.044	1.241	4.488	3.463	0.192	1263.	0.950	667.	0.502	587.	0.441	571.	0.430
0.189	3.923	3.027	1.239	4.494	3.468	0.190	1263.	0.950	668.	0.503	587.	0.442	572.	0.430
0.185	3.857	3.004	1.235	4.499	3.469	0.186	1264.	0.951	670.	0.504	588.	0.442	572.	0.431
0.182	3.871	2.982	1.232	4.505	3.471	0.183	1265.	0.951	671.	0.505	588.	0.443	573.	0.431
0.178	3.846	2.961	1.228	4.510	3.473	0.179	1265.	0.952	672.	0.506	589.	0.444	573.	0.432
0.175	3.820	2.941	1.225	4.516	3.477	0.176	1265.	0.952	674.	0.507	590.	0.444	574.	0.432
0.172	3.794	2.919	1.222	4.517	3.475	0.173	1265.	0.953	675.	0.508	590.	0.445	575.	0.433
0.170	3.768	2.897	1.220	4.526	3.480	0.171	1266.	0.953	677.	0.510	591.	0.445	575.	0.433
0.167	3.745	2.876	1.217	4.537	3.484	0.168	1266.	0.953	678.	0.511	591.	0.445	576.	0.433
0.164	3.719	2.852	1.214	4.547	3.486	0.165	1265.	0.953	679.	0.512	592.	0.446	576.	0.434
0.160	3.693	2.828	1.210	4.555	3.488	0.161	1266.	0.953	681.	0.513	593.	0.446	577.	0.434
0.158	3.668	2.805	1.208	4.563	3.489	0.159	1266.	0.953	682.	0.514	593.	0.447	577.	0.435
0.155	3.644	2.781	1.205	4.573	3.490	0.156	1266.	0.954	683.	0.515	594.	0.447	578.	0.435
0.152	3.615	2.755	1.202	4.580	3.490	0.153	1266.	0.954	685.	0.516	594.	0.447	579.	0.436
0.149	3.585	2.730	1.199	4.581	3.489	0.150	1267.	0.954	686.	0.517	595.	0.448	579.	0.436
0.146	3.551	2.702	1.196	4.593	3.495	0.147	1267.	0.954	687.	0.518	595.	0.448	580.	0.437
0.142	3.511	2.671	1.192	4.599	3.498	0.143	1267.	0.954	689.	0.519	596.	0.449	581.	0.437
0.138	3.465	2.632	1.188	4.603	3.496	0.139	1266.	0.954	690.	0.519	597.	0.449	581.	0.438
0.133	3.411	2.589	1.183	4.604	3.494	0.134	1266.	0.953	691.	0.520	597.	0.450	582.	0.438
0.130	3.354	2.546	1.180	4.610	3.499	0.131	1266.	0.953	692.	0.521	598.	0.450	583.	0.439
0.126	3.296	2.500	1.176	4.613	3.499	0.127	1266.	0.953	694.	0.522	598.	0.450	584.	0.440
0.123	3.238	2.456	1.173	4.616	3.501	0.124	1265.	0.953	695.	0.523	599.	0.451	585.	0.440
0.120	3.176	2.409	1.170	4.619	3.503	0.121	1265.	0.953	696.	0.524	599.	0.451	585.	0.441
0.118	3.119	2.366	1.168	4.621	3.505	0.119	1265.	0.952	697.	0.525	600.	0.452	586.	0.441
0.114	3.054	2.315	1.164	4.624	3.505	0.115	1264.	0.952	699.	0.526	600.	0.452	587.	0.442
0.111	2.970	2.251	1.161	4.627	3.507	0.112	1263.	0.951	700.	0.527	601.	0.452	588.	0.443
0.107	2.882	2.184	1.157	4.627	3.508	0.108	1261.	0.949	701.	0.528	602.	0.453	589.	0.443
0.103	2.784	2.110	1.153	4.628	3.508	0.104	1258.	0.948	702.	0.529	602.	0.453	590.	0.444
0.100	2.682	2.033	1.150	4.627	3.507	0.101	1255.	0.945	703.	0.530	603.	0.454	590.	0.445
0.096	2.586	1.945	1.146	4.630	3.509	0.097	1250.	0.941	704.	0.530	603.	0.454	591.	0.445
0.091	2.437	1.847	1.141	4.634	3.512	0.092	1242.	0.935	705.	0.531	604.	0.454	592.	0.446
0.087	2.305	1.747	1.137	4.634	3.513	0.088	1232.	0.928	707.	0.532	604.	0.455	593.	0.447
0.082	2.160	1.637	1.132	4.634	3.513	0.083	1216.	0.916	708.	0.533	605.	0.455	594.	0.448
0.078	2.024	1.534	1.128	4.636	3.514	0.079	1204.	0.907	709.	0.534	605.	0.456	595.	0.448
0.074	1.892	1.434	1.124	4.633	3.512	0.075	1188.	0.894	710.	0.535	606.	0.456	596.	0.449
0.070	1.762	1.335	1.120	4.635	3.514	0.071	1168.	0.879	711.	0.535	606.	0.457	597.	0.450
0.066	1.635	1.240	1.116	4.633	3.514	0.067	1147.	0.864	712.	0.536	607.	0.457	598.	0.450



ORIGINAL PAGE IS  
OF POOR QUALITY

DATE = 9-20-73  
PROJECT NUMBER VA353-21BA  
ARO, INC.  
ARNOLD-AIR FORCE STATION, TENN.  
NASA/RI OH9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PG (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
45.	139	7.92	148.6	1328.	25.02	4.98	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT <sup>3</sup> )	MC-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.0	0.0162	1.319	0.713	3846.	0.447E-03	0.254E-05	0.677E 06	18.06	0.0	0.80	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.062	1.518	1.151	1.112	4.635	3.513	0.063	1124.	0.846	713.	0.537	607.	0.457	599.	0.451
0.057	1.405	1.066	1.107	4.633	3.514	0.058	1099.	0.828	714.	0.538	608.	0.458	600.	0.452
0.055	1.298	0.984	1.105	4.634	3.512	0.056	1078.	0.811	715.	0.538	608.	0.458	601.	0.452
0.051	1.203	0.913	1.101	4.636	3.517	0.052	1057.	0.796	716.	0.539	609.	0.459	601.	0.453
0.047	1.116	0.846	1.097	4.635	3.516	0.048	1033.	0.778	717.	0.540	609.	0.459	602.	0.454
0.043	1.041	0.790	1.093	4.639	3.521	0.044	1009.	0.760	718.	0.541	610.	0.459	603.	0.454
0.039	0.968	0.735	1.089	4.642	3.524	0.040	984.	0.741	719.	0.542	610.	0.460	604.	0.455
0.035	0.901	0.684	1.085	4.640	3.522	0.036	960.	0.723	720.	0.542	611.	0.460	605.	0.456
0.031	0.846	0.643	1.081	4.640	3.522	0.032	934.	0.704	721.	0.543	611.	0.460	606.	0.456
0.026	0.797	0.605	1.076	4.645	3.526	0.027	908.	0.684	722.	0.544	612.	0.461	607.	0.457
0.023	0.750	0.570	1.073	4.646	3.529	0.024	886.	0.667	723.	0.545	612.	0.461	608.	0.458
0.018	0.706	0.536	1.068	4.649	3.529	0.019	858.	0.646	724.	0.545	613.	0.462	609.	0.458
0.015	0.672	0.510	1.065	4.647	3.530	0.016	840.	0.633	725.	0.546	614.	0.462	610.	0.459
0.013	0.639	0.486	1.063	4.649	3.534	0.014	822.	0.619	726.	0.547	614.	0.462	611.	0.460
0.011	0.609	0.463	1.061	4.652	3.536	0.012	802.	0.604	727.	0.548	614.	0.463	612.	0.460
0.008	0.584	0.444	1.058	4.651	3.533	0.009	784.	0.590	728.	0.548	615.	0.463	612.	0.461
0.007	0.530	0.403	1.057	4.650	3.537	0.008	777.	0.585	731.	0.550	616.	0.464	615.	0.463

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 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/RI OF SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
46.	139	7.92	150.4	1328.	24.99	5.01	30.00	180.00	0					
Y-INF	P-INF	PO1	Q-INF	U-INF	W0-INF	ML-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LEM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.0	0.0164	1.336	0.722	3846.	0.453E-03	0.254E-05	0.686E 06	15.81	0.0	0.70	22.58			
ZP1	PP1	PP1/PO1	2P2	PP2	PP2/PO1	ZT2	YT2	YT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
			2.356	1.228	0.919	1.307	1258.	0.447	547.	0.412	538.	0.405	546.	0.411
			2.334	1.226	0.918	1.285	1258.	0.447	549.	0.413	539.	0.406	546.	0.411
			2.302	1.227	0.918	1.253	1258.	0.447	551.	0.415	541.	0.407	546.	0.411
			2.266	1.227	0.918	1.217	1257.	0.446	554.	0.417	541.	0.408	546.	0.411
			2.238	1.227	0.918	1.189	1257.	0.446	556.	0.419	542.	0.408	546.	0.411
1.187	4.385	3.278	2.237	1.230	0.919	1.188	1256.	0.445	591.	0.445	555.	0.418	549.	0.413
1.153	4.458	3.333	2.203	1.229	0.919	1.154	1254.	0.444	593.	0.447	556.	0.419	549.	0.414
1.121	4.515	3.375	2.171	1.228	0.918	1.122	1254.	0.445	595.	0.446	557.	0.419	549.	0.414
1.086	4.556	3.408	2.136	1.228	0.918	1.087	1255.	0.445	598.	0.450	558.	0.420	550.	0.414
1.051	4.594	3.439	2.101	1.228	0.919	1.052	1254.	0.445	600.	0.452	558.	0.420	550.	0.414
1.017	4.630	3.466	2.067	1.227	0.918	1.018	1254.	0.444	602.	0.454	559.	0.421	550.	0.414
0.984	4.673	3.497	2.034	1.227	0.918	0.985	1254.	0.445	604.	0.455	560.	0.422	550.	0.415
0.951	4.716	3.532	2.001	1.225	0.917	0.952	1255.	0.445	607.	0.457	561.	0.422	551.	0.415
0.917	4.751	3.560	1.967	1.225	0.918	0.918	1254.	0.444	609.	0.459	562.	0.423	551.	0.415
0.883	4.779	3.584	1.933	1.223	0.917	0.884	1254.	0.444	611.	0.460	562.	0.424	551.	0.415
0.849	4.799	3.601	1.899	1.222	0.917	0.850	1254.	0.444	613.	0.462	563.	0.424	552.	0.415
0.814	4.816	3.614	1.864	1.220	0.916	0.815	1254.	0.444	615.	0.463	564.	0.425	552.	0.416
0.780	4.835	3.631	1.830	1.221	0.917	0.781	1254.	0.444	617.	0.465	565.	0.425	552.	0.416
0.746	4.853	3.649	1.796	1.220	0.917	0.747	1254.	0.444	619.	0.466	565.	0.426	552.	0.416
0.712	4.871	3.663	1.762	1.218	0.916	0.713	1254.	0.444	622.	0.468	566.	0.426	553.	0.416
0.677	4.893	3.679	1.727	1.216	0.914	0.678	1254.	0.444	624.	0.470	567.	0.427	553.	0.416
0.640	4.924	3.707	1.690	1.215	0.915	0.641	1254.	0.444	626.	0.471	567.	0.427	553.	0.417
0.605	4.960	3.735	1.655	1.214	0.914	0.606	1253.	0.444	627.	0.473	568.	0.428	554.	0.417
0.574	4.980	3.752	1.624	1.214	0.915	0.575	1253.	0.444	629.	0.474	569.	0.428	554.	0.417
0.539	4.980	3.755	1.589	1.213	0.914	0.540	1254.	0.444	631.	0.475	569.	0.429	554.	0.417
0.505	4.957	3.740	1.555	1.211	0.914	0.506	1253.	0.444	633.	0.477	570.	0.430	554.	0.418
0.470	4.911	3.705	1.520	1.211	0.914	0.471	1254.	0.444	635.	0.478	571.	0.430	555.	0.418
0.436	4.846	3.656	1.486	1.211	0.914	0.437	1254.	0.445	637.	0.480	572.	0.430	555.	0.418
0.402	4.773	3.603	1.452	1.210	0.913	0.403	1254.	0.445	639.	0.481	572.	0.431	555.	0.418
0.367	4.695	3.544	1.417	1.209	0.913	0.368	1255.	0.445	641.	0.482	573.	0.431	556.	0.418
			1.383	1.210	0.915	0.334	1256.	0.446	642.	0.484	574.	0.432	556.	0.419
			1.348	1.209	0.914	0.299	1256.	0.446	644.	0.485	574.	0.432	556.	0.419
			1.333	1.207	0.912	0.284	1256.	0.446	646.	0.486	575.	0.433	557.	0.419
			1.325	1.207	0.913	0.276	1256.	0.446	647.	0.488	576.	0.433	557.	0.420
			1.321	1.208	0.915	0.272	1257.	0.447	649.	0.489	576.	0.434	558.	0.420
0.268	4.249	3.256	1.314	1.208	0.915	0.265	1257.	0.446	651.	0.490	577.	0.434	558.	0.420
0.264	4.276	3.239	1.314	1.208	0.915	0.265	1257.	0.447	652.	0.491	578.	0.435	559.	0.421
0.260	4.254	3.225	1.310	1.205	0.913	0.261	1257.	0.447	654.	0.493	578.	0.435	559.	0.421
0.257	4.239	3.213	1.307	1.203	0.912	0.258	1257.	0.447	656.	0.494	579.	0.436	560.	0.422
0.255	4.223	3.203	1.305	1.203	0.912	0.256	1257.	0.447	657.	0.495	580.	0.436	560.	0.422
0.253	4.209	3.195	1.303	1.203	0.913	0.254	1258.	0.447	659.	0.496	580.	0.437	561.	0.422
0.250	4.196	3.185	1.300	1.202	0.912	0.251	1258.	0.447	661.	0.497	581.	0.437	562.	0.423

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ARO, INC.  
ARNOLD-AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PC (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
46.	139	7.92	148.2	1328.	25.00	5.00	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RU-INF	PU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.0	0.0162	1.316	0.711	3846.	0.446E-03	0.254E-05	0.675E 06	15.81	0.0	0.70	22.58			
TP1	PP1	PP1/PO1	TP2	PP2	PP2/PO1	TT2	TT2/TO	TT1	TT1/TO	TT2	TT2/TO	TT3	TT3/TO	
(IN)	(PSIA)		(IN)	(PSIA)		(DEG R)		(DEG R)		(DEG R)		(DEG R)		
0.247	4.180	3.177	1.297	1.201	0.913	0.248	1257.	0.947	662.	0.499	581.	0.438	562.	0.424
0.242	4.167	3.167	1.292	1.202	0.914	0.243	1258.	0.947	664.	0.500	582.	0.438	564.	0.424
0.239	4.149	3.156	1.289	1.200	0.913	0.240	1258.	0.947	665.	0.501	582.	0.439	564.	0.425
0.234	4.130	3.143	1.284	1.201	0.914	0.235	1258.	0.947	667.	0.502	583.	0.439	565.	0.425
0.229	4.107	3.126	1.279	1.201	0.914	0.230	1258.	0.947	666.	0.503	584.	0.440	566.	0.426
0.225	4.084	3.113	1.275	1.205	0.918	0.226	1258.	0.947	670.	0.504	584.	0.440	566.	0.426
0.220	4.057	3.092	1.270	1.210	0.922	0.221	1259.	0.948	671.	0.505	585.	0.440	567.	0.427
0.217	4.027	3.071	1.267	1.211	0.923	0.218	1259.	0.948	672.	0.506	586.	0.441	568.	0.427
0.214	4.004	3.056	1.264	1.220	0.931	0.215	1259.	0.948	674.	0.507	586.	0.441	568.	0.428
0.211	3.984	3.041	1.261	1.226	0.936	0.212	1259.	0.948	675.	0.508	587.	0.442	569.	0.428
0.208	3.963	3.024	1.258	1.232	0.940	0.209	1260.	0.948	677.	0.509	588.	0.442	570.	0.429
0.204	3.945	3.011	1.254	1.244	0.950	0.205	1260.	0.949	678.	0.510	588.	0.443	570.	0.429
0.202	3.926	2.994	1.252	1.252	0.955	0.203	1260.	0.949	679.	0.511	589.	0.443	571.	0.430
0.199	3.907	2.980	1.249	1.262	0.962	0.200	1261.	0.949	681.	0.513	589.	0.444	572.	0.430
0.196	3.889	2.964	1.246	1.270	0.968	0.197	1261.	0.949	682.	0.514	590.	0.444	572.	0.431
0.193	3.872	2.949	1.243	1.290	0.982	0.194	1261.	0.950	683.	0.514	590.	0.444	573.	0.432
0.189	3.853	2.935	1.239	1.319	1.004	0.190	1261.	0.950	685.	0.515	591.	0.445	574.	0.432
0.187	3.829	2.914	1.237	1.340	1.020	0.188	1262.	0.950	686.	0.516	591.	0.445	575.	0.433
0.184	3.810	2.898	1.234	1.391	1.058	0.185	1262.	0.950	687.	0.517	592.	0.446	576.	0.433
0.181	3.785	2.881	1.231	1.451	1.105	0.182	1262.	0.950	688.	0.518	592.	0.446	577.	0.434
0.178	3.761	2.862	1.228	1.521	1.158	0.179	1262.	0.951	690.	0.519	593.	0.447	577.	0.435
0.174	3.737	2.842	1.224	1.650	1.255	0.175	1262.	0.951	691.	0.520	594.	0.447	578.	0.435
0.170	3.707	2.819	1.220	1.772	1.348	0.171	1263.	0.951	692.	0.521	594.	0.447	579.	0.436
0.166	3.674	2.792	1.216	1.914	1.455	0.167	1263.	0.951	693.	0.522	595.	0.448	580.	0.437
0.164	3.641	2.769	1.214	2.070	1.574	0.165	1264.	0.952	695.	0.523	595.	0.448	581.	0.438
0.160	3.609	2.743	1.210	2.212	1.682	0.161	1264.	0.952	696.	0.524	596.	0.449	582.	0.438
0.157	3.572	2.718	1.207	2.367	1.801	0.158	1264.	0.951	697.	0.525	597.	0.449	583.	0.439
0.153	3.537	2.690	1.203	2.549	1.939	0.154	1264.	0.952	698.	0.526	597.	0.450	584.	0.440
0.150	3.505	2.666	1.200	2.741	2.085	0.151	1264.	0.952	699.	0.527	598.	0.450	585.	0.441
0.145	3.470	2.639	1.195	2.972	2.261	0.146	1264.	0.952	700.	0.527	598.	0.450	586.	0.441
0.142	3.431	2.609	1.192	3.265	2.483	0.143	1264.	0.952	702.	0.528	599.	0.451	587.	0.442
0.138	3.387	2.577	1.188	3.562	2.711	0.139	1265.	0.952	703.	0.529	599.	0.451	588.	0.443
0.136	3.345	2.546	1.186	3.786	2.882	0.137	1265.	0.952	704.	0.530	600.	0.452	589.	0.444
0.133	3.307	2.517	1.183	3.943	3.001	0.134	1265.	0.953	705.	0.531	600.	0.452	591.	0.445
0.130	3.269	2.488	1.180	4.119	3.135	0.131	1265.	0.953	706.	0.532	601.	0.452	592.	0.445
0.126	3.225	2.456	1.176	4.283	3.282	0.127	1265.	0.953	707.	0.533	601.	0.453	593.	0.446
0.123	3.185	2.426	1.173	4.418	3.385	0.124	1265.	0.953	708.	0.533	602.	0.453	594.	0.447
0.119	3.144	2.396	1.169	4.494	3.425	0.120	1265.	0.952	709.	0.534	602.	0.454	595.	0.448
0.117	3.099	2.362	1.167	4.526	3.449	0.118	1265.	0.952	710.	0.535	603.	0.454	596.	0.449
0.114	3.057	2.330	1.164	4.524	3.448	0.115	1265.	0.952	712.	0.536	604.	0.454	597.	0.450
0.112	3.013	2.298	1.162	4.535	3.458	0.113	1265.	0.952	713.	0.537	604.	0.455	598.	0.451
0.110	2.967	2.263	1.160	4.533	3.457	0.111	1265.	0.953	714.	0.538	605.	0.456	600.	0.452

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GROUP	MODEL	MACH NO	PO(PSIA)	TC(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
46.	139	7.92	147.7	1327.	25.00	5.00	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.0	0.0161	1.311	0.709	3844.	0.444E-03	0.254E-05	0.574E 06	15.81	0.0	0.70	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/T0	Tw1 (DEG R)	Tw1/T0	Tw2 (DEG R)	Tw2/TC	Tw3 (DEG R)	Tw3/TC
0.107	2.925	2.231	1.157	4.530	3.454	0.108	1264.	0.953	715.	0.539	605.	0.456	601.	0.453
0.105	2.880	2.198	1.155	4.531	3.458	0.106	1264.	0.953	716.	0.539	606.	0.456	602.	0.454
0.101	2.826	2.157	1.151	4.525	3.453	0.102	1264.	0.952	717.	0.540	606.	0.457	603.	0.455
0.098	2.767	2.113	1.146	4.526	3.456	0.099	1264.	0.952	718.	0.541	607.	0.457	604.	0.455
0.096	2.707	2.067	1.146	4.525	3.455	0.097	1263.	0.952	719.	0.542	607.	0.458	606.	0.456
0.092	2.638	2.015	1.142	4.527	3.457	0.093	1261.	0.951	720.	0.542	608.	0.458	607.	0.457
0.089	2.561	1.956	1.139	4.529	3.458	0.090	1260.	0.950	721.	0.543	608.	0.458	608.	0.458
0.086	2.474	1.894	1.136	4.527	3.459	0.087	1257.	0.947	722.	0.544	609.	0.459	610.	0.459
0.083	2.393	1.830	1.133	4.530	3.464	0.084	1254.	0.945	723.	0.545	609.	0.459	611.	0.460
0.079	2.300	1.760	1.129	4.531	3.467	0.080	1248.	0.941	724.	0.545	610.	0.459	612.	0.461
0.076	2.204	1.685	1.126	4.532	3.466	0.077	1243.	0.937	725.	0.546	610.	0.460	614.	0.462
0.074	2.104	1.610	1.124	4.528	3.465	0.075	1236.	0.932	726.	0.547	611.	0.460	615.	0.463
0.070	2.013	1.542	1.120	4.530	3.469	0.071	1230.	0.927	727.	0.547	611.	0.461	616.	0.464
0.068	1.923	1.473	1.118	4.531	3.472	0.069	1221.	0.920	727.	0.548	612.	0.461	618.	0.465
0.065	1.826	1.399	1.115	4.531	3.472	0.066	1211.	0.913	728.	0.549	612.	0.461	619.	0.466
0.063	1.731	1.327	1.113	4.531	3.472	0.064	1200.	0.905	729.	0.550	613.	0.462	620.	0.467
0.060	1.643	1.260	1.110	4.535	3.477	0.061	1188.	0.895	730.	0.550	613.	0.462	621.	0.468
0.057	1.554	1.191	1.107	4.536	3.478	0.058	1173.	0.884	731.	0.551	614.	0.462	622.	0.469
0.054	1.462	1.121	1.104	4.534	3.476	0.055	1156.	0.871	732.	0.552	614.	0.463	624.	0.470
0.051	1.376	1.056	1.101	4.535	3.479	0.052	1139.	0.859	733.	0.552	615.	0.463	625.	0.471
0.048	1.291	0.990	1.098	4.535	3.479	0.049	1121.	0.844	734.	0.553	615.	0.464	626.	0.472
0.045	1.208	0.927	1.095	4.536	3.483	0.046	1100.	0.829	735.	0.554	616.	0.464	627.	0.473
0.042	1.135	0.872	1.092	4.539	3.485	0.043	1083.	0.816	736.	0.554	616.	0.464	628.	0.473
0.039	1.064	0.818	1.089	4.541	3.491	0.040	1063.	0.801	736.	0.555	617.	0.465	629.	0.474
0.036	0.996	0.765	1.086	4.543	3.490	0.037	1043.	0.786	737.	0.556	617.	0.465	630.	0.475
0.033	0.935	0.718	1.083	4.546	3.493	0.034	1022.	0.770	738.	0.556	618.	0.466	631.	0.476
0.030	0.879	0.675	1.080	4.553	3.498	0.031	1003.	0.756	739.	0.557	618.	0.466	632.	0.477
0.027	0.827	0.635	1.077	4.559	3.498	0.028	982.	0.740	740.	0.558	619.	0.466	633.	0.477
0.025	0.781	0.600	1.075	4.564	3.502	0.026	962.	0.725	741.	0.558	619.	0.467	634.	0.478
0.021	0.741	0.568	1.071	4.572	3.506	0.022	940.	0.709	742.	0.559	620.	0.467	635.	0.479
0.018	0.701	0.538	1.068	4.575	3.508	0.019	919.	0.693	742.	0.559	620.	0.467	637.	0.480
0.015	0.665	0.510	1.065	4.583	3.512	0.016	899.	0.677	743.	0.560	621.	0.468	638.	0.481
0.012	0.636	0.487	1.062	4.590	3.515	0.013	879.	0.662	744.	0.561	621.	0.468	639.	0.482
0.010	0.609	0.466	1.060	4.590	3.515	0.011	765.	0.576	745.	0.561	622.	0.469	640.	0.482
0.007	0.550	0.421	1.057	4.597	3.518	0.008	830.	0.626	747.	0.563	623.	0.470	643.	0.485

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 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PC(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
47.	139	7.92	151.4	1327.	25.00	5.00	30.00	180.00	0					
T-INF	F-INF	P01	Q-INF	U-INF	HMO-INF	MO-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.0	0.0166	1.345	0.727	3844.	0.456E-03	0.254E-05	0.691E 06	13.55	0.0	0.60	22.58			
ZP1	PP1	PP1/P01	2P2	PP2	PP2/P01	Z12	112	112/10	1w1	1w1/10	1w2	1w2/10	1w3	1w3/10
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
			2.383	1.227	0.912	1.334	1258.	0.948	531.	0.400	528.	0.398	546.	0.411
			2.363	1.228	0.912	1.314	1258.	0.948	532.	0.402	529.	0.399	547.	0.412
			2.329	1.229	0.913	1.280	1258.	0.948	535.	0.403	530.	0.400	548.	0.413
			2.298	1.229	0.914	1.249	1258.	0.948	538.	0.405	532.	0.401	550.	0.414
			2.262	1.230	0.914	1.213	1259.	0.949	540.	0.407	532.	0.401	552.	0.416
			2.230	1.231	0.915	1.181	1258.	0.948	543.	0.409	533.	0.402	553.	0.417
			2.194	1.228	0.913	1.145	1258.	0.948	545.	0.411	535.	0.403	555.	0.418
			2.160	1.231	0.915	1.111	1258.	0.948	548.	0.413	536.	0.404	559.	0.421
			2.124	1.230	0.914	1.075	1256.	0.947	550.	0.415	536.	0.404	563.	0.424
1.068	4.253	3.215	2.118	1.221	0.914	1.069	1256.	0.946	590.	0.445	551.	0.415	591.	0.445
1.035	4.387	3.288	2.085	1.220	0.914	1.036	1254.	0.945	592.	0.446	552.	0.416	593.	0.447
1.002	4.482	3.349	2.052	1.220	0.915	1.003	1254.	0.945	595.	0.448	553.	0.416	594.	0.448
0.968	4.518	3.393	2.018	1.219	0.915	0.969	1254.	0.945	597.	0.450	553.	0.417	595.	0.448
0.934	4.560	3.425	1.984	1.218	0.915	0.935	1254.	0.945	599.	0.451	554.	0.418	596.	0.449
0.900	4.596	3.456	1.950	1.217	0.915	0.901	1254.	0.945	601.	0.453	555.	0.418	596.	0.449
0.865	4.632	3.485	1.915	1.216	0.915	0.866	1254.	0.945	603.	0.455	556.	0.419	595.	0.449
0.830	4.663	3.511	1.880	1.216	0.916	0.831	1253.	0.945	605.	0.456	556.	0.419	595.	0.448
0.795	4.692	3.533	1.845	1.216	0.916	0.796	1254.	0.945	607.	0.458	557.	0.420	596.	0.449
0.761	4.719	3.555	1.811	1.215	0.915	0.762	1254.	0.945	609.	0.459	558.	0.420	597.	0.450
0.726	4.755	3.587	1.776	1.213	0.915	0.727	1253.	0.945	611.	0.461	559.	0.421	599.	0.451
0.691	4.808	3.630	1.741	1.212	0.915	0.692	1253.	0.945	613.	0.462	559.	0.421	600.	0.452
0.655	4.853	3.666	1.705	1.211	0.915	0.656	1253.	0.945	615.	0.464	560.	0.422	602.	0.454
0.622	4.870	3.681	1.672	1.211	0.915	0.623	1253.	0.945	617.	0.465	561.	0.422	602.	0.454
0.587	4.868	3.680	1.637	1.210	0.915	0.588	1254.	0.945	619.	0.467	561.	0.423	602.	0.453
0.549	4.848	3.665	1.599	1.211	0.915	0.550	1254.	0.945	621.	0.468	562.	0.423	601.	0.453
0.518	4.808	3.632	1.566	1.212	0.916	0.519	1254.	0.945	623.	0.470	563.	0.424	602.	0.454
0.483	4.784	3.599	1.533	1.210	0.914	0.484	1254.	0.945	625.	0.471	564.	0.425	603.	0.454
0.448	4.718	3.564	1.498	1.211	0.915	0.449	1255.	0.945	627.	0.472	564.	0.425	604.	0.455
0.413	4.661	3.519	1.463	1.211	0.914	0.414	1255.	0.946	629.	0.474	565.	0.426	605.	0.456
0.379	4.592	3.467	1.429	1.208	0.912	0.380	1255.	0.946	630.	0.475	566.	0.426	605.	0.456
			1.394	1.207	0.912	0.345	1256.	0.947	632.	0.476	566.	0.427	606.	0.457
			1.368	1.210	0.913	0.319	1257.	0.947	634.	0.478	567.	0.427	607.	0.457
			1.360	1.208	0.912	0.311	1256.	0.947	636.	0.479	568.	0.428	607.	0.458
			1.352	1.207	0.911	0.303	1256.	0.947	637.	0.480	568.	0.428	608.	0.458
0.300	4.326	3.266	1.350	1.209	0.913	0.301	1257.	0.947	639.	0.482	569.	0.429	609.	0.459
0.297	4.310	3.254	1.347	1.209	0.913	0.298	1257.	0.947	641.	0.483	570.	0.429	610.	0.459
0.293	4.298	3.245	1.343	1.210	0.913	0.294	1257.	0.947	642.	0.484	570.	0.430	610.	0.460
0.290	4.286	3.234	1.340	1.210	0.913	0.291	1257.	0.947	644.	0.485	571.	0.430	611.	0.460
0.286	4.273	3.226	1.338	1.210	0.913	0.289	1258.	0.948	646.	0.486	572.	0.431	612.	0.461
0.285	4.265	3.218	1.335	1.210	0.913	0.286	1258.	0.948	647.	0.488	572.	0.431	612.	0.461
0.282	4.256	3.209	1.332	1.210	0.912	0.283	1258.	0.948	649.	0.489	573.	0.432	613.	0.462
0.278	4.244	3.202	1.328	1.209	0.912	0.279	1258.	0.948	650.	0.490	574.	0.432	614.	0.462

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 ARQ, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PC(PSIA)	TC(DEG R)	ALPHA-PCODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
47.	139	7.92	149.3	1327.	25.02	4.98	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	PL-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.0	0.0163	1.325	0.716	3844.	0.444E-03	0.254E-05	0.681E 06	13.55	0.0	0.60	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PC1	TI2 (IN)	TI2 (DEG R)	TI2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
0.275	4.233	3.194	1.325	1.210	0.913	0.276	1258.	0.948	652.	0.491	574.	0.433	614.	0.463
0.272	4.220	3.185	1.322	1.210	0.913	0.273	1258.	0.948	653.	0.492	575.	0.433	615.	0.463
0.269	4.208	3.177	1.319	1.208	0.912	0.270	1258.	0.948	655.	0.494	575.	0.434	616.	0.464
0.265	4.197	3.167	1.315	1.210	0.913	0.266	1258.	0.948	656.	0.495	576.	0.434	616.	0.464
0.261	4.184	3.159	1.311	1.209	0.913	0.262	1258.	0.948	658.	0.496	576.	0.434	617.	0.465
0.258	4.169	3.148	1.308	1.209	0.913	0.259	1258.	0.948	659.	0.497	577.	0.435	618.	0.465
0.256	4.156	3.136	1.306	1.208	0.912	0.257	1258.	0.948	661.	0.498	578.	0.435	618.	0.466
0.253	4.145	3.132	1.303	1.208	0.913	0.254	1258.	0.948	662.	0.499	578.	0.436	619.	0.466
0.249	4.130	3.120	1.299	1.208	0.913	0.250	1258.	0.948	664.	0.500	579.	0.436	619.	0.467
0.246	4.114	3.108	1.296	1.207	0.912	0.247	1259.	0.949	665.	0.501	580.	0.437	620.	0.467
0.243	4.099	3.099	1.293	1.206	0.912	0.244	1259.	0.948	667.	0.502	580.	0.437	621.	0.468
0.240	4.083	3.089	1.290	1.207	0.913	0.241	1259.	0.949	668.	0.503	581.	0.438	621.	0.468
0.236	4.066	3.076	1.286	1.205	0.912	0.237	1259.	0.949	669.	0.504	581.	0.438	622.	0.469
0.233	4.049	3.063	1.283	1.203	0.910	0.234	1259.	0.949	671.	0.505	582.	0.438	622.	0.469
0.230	4.031	3.052	1.280	1.204	0.911	0.231	1259.	0.949	672.	0.506	582.	0.439	623.	0.469
0.226	4.012	3.039	1.276	1.204	0.912	0.227	1259.	0.949	673.	0.508	583.	0.440	623.	0.470
0.224	3.996	3.029	1.274	1.204	0.913	0.225	1260.	0.950	675.	0.508	584.	0.440	624.	0.470
0.221	3.980	3.015	1.271	1.205	0.913	0.222	1260.	0.949	676.	0.509	584.	0.440	624.	0.471
0.218	3.962	3.003	1.268	1.203	0.912	0.219	1260.	0.949	677.	0.510	585.	0.441	625.	0.471
0.215	3.945	2.992	1.265	1.202	0.912	0.216	1260.	0.950	679.	0.511	585.	0.441	626.	0.471
0.212	3.927	2.981	1.262	1.202	0.912	0.213	1260.	0.950	680.	0.512	586.	0.442	626.	0.472
0.209	3.905	2.966	1.259	1.201	0.912	0.210	1260.	0.950	681.	0.513	587.	0.442	627.	0.472
0.206	3.886	2.952	1.256	1.200	0.911	0.207	1261.	0.950	683.	0.514	587.	0.442	627.	0.473
0.203	3.868	2.940	1.253	1.199	0.911	0.204	1261.	0.950	684.	0.515	588.	0.443	628.	0.473
0.200	3.845	2.924	1.250	1.199	0.912	0.201	1261.	0.950	685.	0.516	588.	0.443	628.	0.473
0.196	3.821	2.906	1.246	1.198	0.912	0.197	1261.	0.950	686.	0.517	589.	0.444	629.	0.474
0.193	3.799	2.891	1.243	1.198	0.912	0.194	1262.	0.951	687.	0.518	589.	0.444	629.	0.474
0.190	3.773	2.872	1.240	1.198	0.912	0.191	1262.	0.951	689.	0.519	590.	0.445	629.	0.474
0.187	3.744	2.849	1.237	1.195	0.909	0.188	1262.	0.951	690.	0.520	591.	0.445	630.	0.475
0.183	3.719	2.834	1.233	1.197	0.912	0.184	1262.	0.951	691.	0.521	591.	0.445	630.	0.475
0.180	3.693	2.814	1.230	1.197	0.912	0.181	1263.	0.952	692.	0.522	592.	0.446	630.	0.475
0.176	3.665	2.793	1.226	1.195	0.911	0.177	1263.	0.952	693.	0.523	592.	0.446	631.	0.475
0.172	3.637	2.770	1.222	1.198	0.912	0.173	1263.	0.952	695.	0.523	593.	0.447	631.	0.476
0.168	3.604	2.745	1.218	1.198	0.912	0.169	1264.	0.952	696.	0.524	593.	0.447	631.	0.476
0.165	3.569	2.718	1.215	1.196	0.911	0.166	1264.	0.953	697.	0.525	594.	0.448	632.	0.476
0.160	3.534	2.691	1.210	1.197	0.912	0.161	1264.	0.953	698.	0.526	594.	0.448	632.	0.476
0.158	3.500	2.665	1.208	1.198	0.912	0.159	1265.	0.953	699.	0.527	595.	0.448	632.	0.477
0.155	3.464	2.638	1.205	1.196	0.911	0.156	1265.	0.953	700.	0.528	596.	0.449	633.	0.477
0.151	3.425	2.606	1.201	1.197	0.911	0.152	1265.	0.953	701.	0.528	596.	0.449	633.	0.477
0.148	3.389	2.579	1.198	1.198	0.912	0.149	1266.	0.954	702.	0.529	596.	0.449	633.	0.477
0.145	3.350	2.550	1.195	1.194	0.909	0.146	1265.	0.953	703.	0.530	597.	0.450	634.	0.477
0.142	3.320	2.529	1.192	1.198	0.912	0.143	1266.	0.954	705.	0.531	598.	0.450	634.	0.478

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GROUP	MODEL	MACH NO.	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW					
47.	139	7.92	148.0	1327.	25.02	4.98	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	FOI (PSIA)	O-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.0	0.0162	1.314	0.710	3844.	0.445E-03	0.254E-05	0.675E 06	13.55	0.0	0.60	22.58			
ZP1 (IN)	PF1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TC	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.139	3.286	2.501	1.189	1.200	0.913	0.140	1266.	0.954	706.	0.532	598.	0.451	634.	0.478
0.136	3.250	2.474	1.186	1.196	0.910	0.137	1266.	0.954	707.	0.533	599.	0.451	635.	0.478
0.132	3.212	2.445	1.182	1.196	0.911	0.133	1266.	0.954	708.	0.533	599.	0.452	635.	0.478
0.129	3.176	2.418	1.179	1.199	0.912	0.130	1267.	0.954	709.	0.534	600.	0.452	635.	0.479
0.126	3.137	2.386	1.176	1.199	0.912	0.127	1266.	0.954	710.	0.535	600.	0.452	636.	0.479
0.122	3.095	2.354	1.172	1.199	0.912	0.123	1266.	0.954	711.	0.536	601.	0.453	636.	0.479
0.119	3.056	2.323	1.169	1.197	0.910	0.120	1267.	0.955	712.	0.536	602.	0.453	636.	0.479
0.116	3.021	2.295	1.166	1.201	0.912	0.117	1267.	0.955	713.	0.537	602.	0.454	637.	0.480
0.114	2.987	2.267	1.164	1.203	0.913	0.115	1267.	0.955	714.	0.538	602.	0.454	637.	0.480
0.111	2.955	2.243	1.161	1.202	0.913	0.112	1267.	0.955	715.	0.539	603.	0.454	637.	0.480
0.109	2.921	2.216	1.159	1.205	0.914	0.110	1267.	0.955	716.	0.539	604.	0.455	638.	0.481
0.106	2.890	2.191	1.156	1.200	0.914	0.107	1267.	0.955	717.	0.540	604.	0.455	638.	0.481
0.104	2.855	2.164	1.154	1.209	0.916	0.105	1268.	0.955	718.	0.541	605.	0.456	638.	0.481
0.101	2.816	2.133	1.151	1.212	0.918	0.102	1268.	0.955	719.	0.542	605.	0.456	639.	0.481
0.099	2.772	2.100	1.149	1.216	0.921	0.100	1268.	0.955	720.	0.542	606.	0.456	639.	0.482
0.095	2.723	2.063	1.145	1.217	0.922	0.096	1267.	0.955	721.	0.543	606.	0.457	639.	0.482
0.092	2.678	2.029	1.142	1.224	0.927	0.093	1267.	0.955	722.	0.544	607.	0.457	640.	0.482
0.090	2.625	1.988	1.140	1.230	0.932	0.091	1268.	0.955	723.	0.545	607.	0.458	640.	0.482
0.087	2.569	1.946	1.137	1.235	0.936	0.088	1267.	0.955	724.	0.545	608.	0.458	640.	0.482
0.084	2.507	1.899	1.134	1.242	0.941	0.085	1266.	0.954	725.	0.546	608.	0.458	640.	0.483
0.081	2.442	1.850	1.131	1.251	0.948	0.082	1265.	0.953	726.	0.547	609.	0.459	641.	0.483
0.079	2.372	1.795	1.129	1.256	0.951	0.080	1263.	0.952	726.	0.547	609.	0.459	641.	0.483
0.076	2.300	1.741	1.126	1.263	0.956	0.077	1261.	0.950	727.	0.548	610.	0.460	641.	0.483
0.074	2.232	1.689	1.124	1.271	0.962	0.075	1258.	0.948	728.	0.549	610.	0.460	642.	0.483
0.071	2.163	1.637	1.121	1.279	0.968	0.072	1255.	0.946	729.	0.549	611.	0.460	642.	0.484
0.069	2.088	1.581	1.119	1.289	0.976	0.070	1251.	0.943	730.	0.550	612.	0.461	642.	0.484
0.066	2.010	1.522	1.116	1.305	0.988	0.067	1245.	0.938	731.	0.551	612.	0.461	643.	0.484
0.063	1.928	1.460	1.113	1.333	1.009	0.064	1237.	0.932	732.	0.551	612.	0.461	643.	0.484
0.060	1.838	1.392	1.110	1.366	1.036	0.061	1228.	0.925	732.	0.552	613.	0.462	643.	0.485
0.058	1.751	1.326	1.108	1.403	1.063	0.059	1220.	0.919	734.	0.553	613.	0.462	644.	0.485
0.055	1.668	1.264	1.105	1.452	1.100	0.056	1210.	0.912	734.	0.553	614.	0.463	644.	0.485
0.053	1.585	1.201	1.103	1.510	1.144	0.054	1197.	0.902	735.	0.554	614.	0.463	644.	0.486
0.049	1.502	1.138	1.099	1.609	1.215	0.050	1183.	0.891	736.	0.555	615.	0.463	645.	0.486
0.046	1.416	1.073	1.096	1.727	1.308	0.047	1164.	0.877	737.	0.555	615.	0.464	645.	0.486
0.042	1.329	1.006	1.092	1.852	1.402	0.043	1144.	0.862	738.	0.556	616.	0.464	645.	0.486
0.039	1.245	0.943	1.089	1.945	1.455	0.040	1124.	0.847	739.	0.557	616.	0.464	646.	0.487
0.036	1.164	0.882	1.086	2.095	1.588	0.037	1104.	0.832	740.	0.557	617.	0.465	646.	0.487
0.032	1.086	0.822	1.082	2.217	1.680	0.033	1082.	0.815	740.	0.558	618.	0.465	646.	0.487
0.029	1.014	0.764	1.079	2.400	1.819	0.030	1059.	0.798	741.	0.559	618.	0.466	647.	0.487
0.024	0.947	0.718	1.074	2.627	1.992	0.025	1026.	0.774	742.	0.559	618.	0.466	647.	0.488
0.020	0.883	0.669	1.070	2.934	2.224	0.021	991.	0.747	743.	0.560	619.	0.466	648.	0.488
0.015	0.826	0.626	1.065	3.276	2.483	0.016	957.	0.721	744.	0.560	619.	0.467	648.	0.488

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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
47.	139	7.92	148.5	1327.	29.02	4.98	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	W-O-INF (LBM/FT3)	PL-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.0	0.0162	1.318	0.713	3844.	0.447E-03	0.254E-05	0.677E 06	13.55	0.0	0.60	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/T0	TW1 (DEG R)	TW1/T0	TW2 (DEG R)	TW2/T0	TW3 (DEG R)	TW3/T0
-0.011	-0.776	-0.589	1.061	3.594	2.726	0.012	923.	0.696	744.	0.561	620.	0.467	648.	0.488
0.007	0.728	0.552	1.057	3.830	2.903	0.008	843.	0.635	745.	0.562	620.	0.468	648.	0.489
-0.007	-0.608	-0.461	1.057	3.922	2.975	0.008	846.	0.637	748.	0.564	622.	0.469	650.	0.490



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GROUP	MODEL	MACH NO.	PO(PSIA)	TC(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
48.	139	7.92	149.5	1333.	15.42	14.58	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	W0-INF	MC-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
58.4	0.0164	1.328	0.718	3853.	0.448E-03	0.255E-05	0.678E 06	22.58	0.0	1.00	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TC	TW1	TW1/TO	TW2	TW2/TC	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
1.336	4.539	3.416	2.388	1.294	0.974	1.339	1250.	0.937	552.	0.414	543.	0.407	552.	0.414
1.303	4.546	3.421	2.353	1.295	0.974	1.337	1250.	0.938	563.	0.422	547.	0.410	553.	0.415
1.269	4.548	3.423	2.319	1.296	0.975	1.270	1250.	0.937	564.	0.423	547.	0.410	554.	0.415
1.235	4.552	3.426	2.285	1.297	0.976	1.236	1250.	0.938	565.	0.424	548.	0.411	554.	0.415
1.201	4.550	3.424	2.251	1.298	0.977	1.202	1250.	0.937	567.	0.425	548.	0.411	554.	0.415
1.167	4.546	3.421	2.217	1.295	0.974	1.168	1249.	0.937	568.	0.426	548.	0.411	554.	0.416
1.134	4.540	3.417	2.184	1.297	0.976	1.135	1250.	0.937	569.	0.427	549.	0.412	554.	0.416
1.100	4.512	3.395	2.150	1.298	0.976	1.101	1249.	0.937	570.	0.428	549.	0.412	554.	0.416
1.064	4.465	3.360	2.114	1.297	0.976	1.065	1249.	0.937	572.	0.429	549.	0.412	554.	0.416
1.031	4.413	3.321	2.081	1.297	0.976	1.032	1249.	0.937	573.	0.430	550.	0.412	554.	0.416
0.998	4.346	3.268	2.048	1.296	0.974	0.999	1249.	0.937	574.	0.431	550.	0.413	555.	0.416
0.964	4.264	3.208	2.014	1.298	0.976	0.965	1249.	0.937	575.	0.432	550.	0.413	555.	0.416
0.930	4.175	3.140	1.980	1.300	0.978	0.931	1249.	0.937	577.	0.433	551.	0.413	555.	0.416
0.894	4.071	3.061	1.944	1.304	0.981	0.895	1249.	0.937	578.	0.433	551.	0.413	555.	0.416
0.861	3.964	2.961	1.911	1.306	1.226	0.862	1249.	0.937	579.	0.434	552.	0.414	555.	0.416
0.827	3.857	2.902	1.877	1.311	1.237	0.828	1249.	0.937	580.	0.435	552.	0.414	555.	0.417
0.793	3.752	2.821	1.843	1.316	1.248	0.794	1249.	0.937	582.	0.436	552.	0.414	555.	0.417
0.758	3.654	2.750	1.808	1.321	1.259	0.759	1250.	0.937	583.	0.437	553.	0.415	556.	0.417
0.724	3.553	2.674	1.774	1.326	1.270	0.725	1250.	0.937	584.	0.438	553.	0.415	556.	0.417
0.686	3.449	2.594	1.736	1.331	1.281	0.687	1250.	0.938	585.	0.439	553.	0.415	556.	0.417
0.652	3.341	2.512	1.702	1.336	1.292	0.653	1251.	0.938	586.	0.440	554.	0.415	556.	0.417
0.620	3.236	2.433	1.670	1.341	1.303	0.621	1251.	0.937	588.	0.441	554.	0.416	556.	0.417
0.586	3.128	2.354	1.636	1.346	1.314	0.587	1251.	0.937	589.	0.441	554.	0.416	556.	0.417
0.552	3.023	2.273	1.602	1.351	1.325	0.553	1251.	0.938	590.	0.442	555.	0.416	556.	0.417
0.516	2.915	2.193	1.566	1.356	1.336	0.517	1253.	0.939	593.	0.444	555.	0.416	557.	0.417
0.482	2.801	2.108	1.532	1.361	1.347	0.483	1253.	0.939	594.	0.445	556.	0.417	557.	0.417
0.444	2.673	2.010	1.494	1.366	1.358	0.445	1254.	0.940	595.	0.446	556.	0.417	557.	0.418
			1.463	1.371	1.369	0.446	1255.	0.941	596.	0.447	556.	0.417	557.	0.418
			1.429	1.377	1.375	0.447	1256.	0.942	597.	0.448	557.	0.417	557.	0.418
			1.397	1.382	1.381	0.448	1257.	0.944	598.	0.449	557.	0.418	557.	0.418
			1.368	1.388	1.388	0.449	1258.	0.944	600.	0.449	557.	0.418	558.	0.418
			1.379	1.394	1.394	0.450	1260.	0.944	601.	0.450	558.	0.418	558.	0.418
			1.374	1.399	1.399	0.451	1261.	0.945	602.	0.451	558.	0.418	558.	0.418
			1.371	1.404	1.404	0.452	1261.	0.946	603.	0.452	559.	0.419	558.	0.418
			1.368	1.409	1.409	0.453	1262.	0.946	604.	0.453	559.	0.419	558.	0.418
0.316	1.758	1.322	1.366	1.414	1.414	0.317	1262.	0.946	605.	0.454	559.	0.419	558.	0.418
0.313	1.716	1.290	1.363	1.419	1.419	0.314	1262.	0.946	607.	0.455	560.	0.419	558.	0.419
0.311	1.679	1.263	1.361	1.424	1.424	0.312	1262.	0.946	608.	0.455	560.	0.420	559.	0.419
0.308	1.645	1.237	1.358	1.429	1.429	0.309	1262.	0.946	609.	0.456	560.	0.420	559.	0.419
0.305	1.611	1.211	1.355	1.434	1.434	0.306	1262.	0.946	610.	0.457	560.	0.420	559.	0.419
0.302	1.578	1.186	1.352	1.439	1.439	0.303	1261.	0.946	611.	0.458	561.	0.420	559.	0.419

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GROUP	MODEL	MACH NO	PG(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
48.	139	7.92	149.8	1334.	15.44	14.56	30.00	180.00	0					
T-INF	P-INF	P01	G-INF	U-INF	RHO-INF	MC-INF	FE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.5	0.0164	1.330	0.719	3654.	0.448E-03	0.255E-05	0.678E 06	22.58	0.0	1.00	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.298	1.546	1.163	1.348	4.595	3.455	0.299	1262.	0.946	612.	0.459	561.	0.421	559.	0.419
0.296	1.515	1.139	1.346	4.597	3.457	0.297	1261.	0.945	613.	0.460	561.	0.421	559.	0.419
0.293	1.479	1.112	1.343	4.598	3.457	0.294	1260.	0.944	614.	0.460	562.	0.421	559.	0.419
0.290	1.444	1.086	1.340	4.598	3.458	0.291	1259.	0.944	615.	0.461	562.	0.421	560.	0.419
0.287	1.413	1.063	1.337	4.598	3.458	0.288	1258.	0.943	616.	0.462	562.	0.422	560.	0.420
0.285	1.381	1.039	1.335	4.598	3.458	0.286	1257.	0.942	618.	0.463	563.	0.422	560.	0.420
0.282	1.351	1.016	1.332	4.601	3.460	0.283	1255.	0.941	619.	0.464	563.	0.422	560.	0.420
0.278	1.322	0.994	1.328	4.603	3.461	0.279	1253.	0.939	620.	0.465	563.	0.422	560.	0.420
0.276	1.290	0.970	1.326	4.605	3.463	0.277	1251.	0.938	621.	0.465	564.	0.423	560.	0.420
0.274	1.260	0.947	1.324	4.603	3.461	0.275	1249.	0.936	622.	0.466	564.	0.423	561.	0.420
0.271	1.231	0.925	1.321	4.606	3.461	0.272	1246.	0.934	623.	0.467	564.	0.423	561.	0.420
0.268	1.200	0.903	1.318	4.603	3.461	0.269	1243.	0.932	624.	0.468	565.	0.423	561.	0.420
0.265	1.168	0.878	1.315	4.603	3.461	0.266	1239.	0.929	625.	0.469	565.	0.424	561.	0.421
0.262	1.139	0.856	1.312	4.604	3.460	0.263	1235.	0.926	626.	0.469	565.	0.424	561.	0.421
0.258	1.111	0.835	1.308	4.606	3.463	0.259	1229.	0.922	627.	0.470	566.	0.424	561.	0.421
0.256	1.078	0.810	1.306	4.607	3.462	0.257	1224.	0.918	628.	0.471	566.	0.424	562.	0.421
0.252	1.049	0.789	1.302	4.606	3.463	0.253	1219.	0.914	629.	0.472	566.	0.424	562.	0.421
0.250	1.017	0.764	1.300	4.604	3.459	0.251	1215.	0.911	630.	0.472	567.	0.425	562.	0.421
0.247	0.988	0.743	1.297	4.604	3.462	0.248	1209.	0.906	631.	0.473	567.	0.425	562.	0.421
0.245	0.963	0.724	1.295	4.603	3.461	0.246	1203.	0.902	632.	0.474	567.	0.425	562.	0.421
0.241	0.935	0.702	1.291	4.603	3.459	0.242	1195.	0.896	633.	0.475	568.	0.426	562.	0.422
0.237	0.906	0.681	1.287	4.603	3.459	0.238	1186.	0.889	634.	0.475	568.	0.426	562.	0.422
0.235	0.880	0.662	1.285	4.604	3.462	0.236	1180.	0.885	635.	0.476	568.	0.426	563.	0.422
0.233	0.854	0.642	1.283	4.600	3.459	0.234	1174.	0.880	636.	0.477	569.	0.427	563.	0.422
0.230	0.831	0.624	1.280	4.602	3.458	0.231	1167.	0.875	637.	0.478	569.	0.427	563.	0.422
0.227	0.808	0.608	1.277	4.604	3.459	0.228	1159.	0.869	638.	0.478	569.	0.427	563.	0.422
0.224	0.785	0.590	1.274	4.600	3.457	0.225	1152.	0.864	639.	0.479	570.	0.427	563.	0.422
0.221	0.763	0.573	1.271	4.601	3.458	0.222	1144.	0.857	640.	0.480	570.	0.427	563.	0.422
0.217	0.741	0.557	1.267	4.600	3.457	0.218	1133.	0.849	641.	0.481	571.	0.428	564.	0.422
0.213	0.721	0.542	1.263	4.600	3.459	0.214	1123.	0.842	642.	0.481	571.	0.428	564.	0.423
0.209	0.701	0.527	1.259	4.602	3.458	0.210	1117.	0.834	643.	0.482	571.	0.428	564.	0.423
0.206	0.679	0.510	1.256	4.596	3.454	0.207	1102.	0.826	644.	0.483	572.	0.429	564.	0.423
0.202	0.651	0.496	1.252	4.600	3.455	0.203	1092.	0.819	645.	0.484	572.	0.429	564.	0.423
0.198	0.622	0.482	1.248	4.593	3.452	0.199	1082.	0.811	646.	0.484	572.	0.429	564.	0.423
0.195	0.621	0.467	1.245	4.594	3.452	0.196	1072.	0.804	647.	0.485	573.	0.429	565.	0.423
0.191	0.605	0.454	1.241	4.597	3.455	0.192	1061.	0.795	648.	0.486	573.	0.429	565.	0.423
0.188	0.588	0.442	1.238	4.596	3.454	0.189	1052.	0.788	649.	0.486	573.	0.430	565.	0.423
0.184	0.571	0.429	1.234	4.598	3.455	0.185	1042.	0.781	650.	0.487	574.	0.430	565.	0.424
0.180	0.556	0.418	1.230	4.599	3.456	0.181	1030.	0.772	651.	0.488	574.	0.430	565.	0.424
0.176	0.541	0.407	1.226	4.600	3.456	0.177	1019.	0.764	652.	0.489	574.	0.431	565.	0.424
0.173	0.525	0.395	1.223	4.600	3.456	0.174	1009.	0.756	653.	0.489	575.	0.431	566.	0.424
0.168	0.511	0.384	1.218	4.599	3.456	0.169	998.	0.748	654.	0.490	575.	0.431	566.	0.424

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GROUP 48.	MODEL 139	MACH NO 7.92	PO (PSIA) 149.9	TO (DEG R) 1334.	ALPHA-MODEL 15.44	ALPHA-SECTOR 14.56	ALPHA-PREBEND 30.00	ROLL-MODEL 180.00	YAW 0					
T-INF (DEG R) 58.5	P-INF (PSIA) 0.6164	P01 (PSIA) 1.332	Q-INF (PSIA) 0.720	U-INF (FT/SEC) 3854.	MHO-INF (LBM/FT3) 0.449E-03	MU-INF (LBM/FT-SEC) 0.255E-05	RE/FT (FT-1) 0.679E 06	X (IN) 22.58	Y (IN) 0.0	X/L 1.00	L (IN) 22.58			
ZP1 (IN)	PF1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/T0	TW1 (DEG R)	TW1/T0	TW2 (DEG R)	TW2/T0	TW3 (DEG R)	TW3/T0
0.165	0.494	0.371	1.215	4.597	3.452	0.166	587.	0.740	655.	0.491	576.	0.431	566.	0.424
0.161	0.482	0.362	1.211	4.598	3.455	0.162	577.	0.732	656.	0.491	576.	0.431	566.	0.424
0.158	0.469	0.352	1.208	4.597	3.452	0.159	566.	0.724	656.	0.492	576.	0.432	566.	0.424
0.155	0.454	0.341	1.205	4.591	3.448	0.156	556.	0.717	657.	0.493	576.	0.432	566.	0.425
0.151	0.444	0.334	1.201	4.587	3.444	0.152	548.	0.711	658.	0.493	577.	0.432	567.	0.425
0.149	0.433	0.325	1.199	4.596	3.449	0.150	539.	0.704	659.	0.494	577.	0.433	567.	0.425
0.147	0.420	0.315	1.197	4.591	3.450	0.148	532.	0.699	660.	0.495	577.	0.433	567.	0.425
0.145	0.412	0.309	1.195	4.593	3.449	0.146	526.	0.694	661.	0.495	578.	0.433	567.	0.425
0.142	0.401	0.301	1.192	4.589	3.446	0.143	520.	0.689	662.	0.496	578.	0.433	567.	0.425
0.140	0.394	0.296	1.190	4.587	3.447	0.141	514.	0.685	663.	0.497	578.	0.434	567.	0.425
0.137	0.385	0.289	1.187	4.588	3.448	0.138	508.	0.680	664.	0.497	579.	0.434	568.	0.425
0.134	0.375	0.281	1.184	4.583	3.442	0.135	500.	0.674	665.	0.498	579.	0.434	568.	0.425
0.131	0.368	0.276	1.181	4.580	3.439	0.132	492.	0.669	665.	0.499	579.	0.434	568.	0.426
0.128	0.361	0.271	1.178	4.579	3.438	0.129	483.	0.662	666.	0.499	580.	0.434	568.	0.425
0.125	0.351	0.264	1.175	4.577	3.439	0.126	475.	0.656	667.	0.500	580.	0.435	568.	0.426
0.120	0.345	0.259	1.170	4.570	3.432	0.121	466.	0.649	668.	0.501	580.	0.435	568.	0.426
0.118	0.338	0.254	1.168	4.565	3.430	0.119	458.	0.643	669.	0.501	581.	0.435	569.	0.426
0.115	0.330	0.248	1.165	4.564	3.429	0.116	453.	0.639	670.	0.502	581.	0.435	569.	0.426
0.112	0.321	0.241	1.162	4.556	3.421	0.113	446.	0.634	671.	0.502	582.	0.436	569.	0.426
0.110	0.315	0.236	1.160	4.555	3.423	0.111	441.	0.630	671.	0.503	582.	0.436	569.	0.426
0.106	0.309	0.232	1.156	4.550	3.417	0.107	434.	0.625	672.	0.504	582.	0.436	569.	0.426
0.103	0.301	0.226	1.153	4.546	3.416	0.104	427.	0.619	673.	0.504	583.	0.436	569.	0.426
0.100	0.296	0.222	1.150	4.539	3.409	0.101	420.	0.614	674.	0.505	583.	0.437	569.	0.427
0.096	0.290	0.218	1.146	4.531	3.405	0.097	412.	0.608	675.	0.506	583.	0.437	570.	0.427
0.093	0.283	0.212	1.143	4.528	3.403	0.094	405.	0.603	676.	0.506	584.	0.437	570.	0.427
0.090	0.280	0.210	1.140	4.522	3.398	0.091	398.	0.598	677.	0.507	584.	0.437	570.	0.427
0.086	0.274	0.206	1.136	4.519	3.393	0.087	391.	0.593	677.	0.507	584.	0.438	570.	0.427
0.084	0.266	0.199	1.134	4.511	3.388	0.085	386.	0.588	678.	0.508	585.	0.438	571.	0.427
0.080	0.262	0.196	1.130	4.509	3.386	0.081	380.	0.585	679.	0.509	585.	0.438	571.	0.427
0.078	0.254	0.191	1.128	4.503	3.384	0.079	375.	0.580	680.	0.509	585.	0.439	571.	0.427
0.075	0.251	0.188	1.125	4.498	3.378	0.076	370.	0.577	681.	0.510	586.	0.439	571.	0.428
0.071	0.248	0.186	1.121	4.494	3.375	0.072	364.	0.572	681.	0.510	586.	0.439	571.	0.428
0.068	0.240	0.180	1.118	4.486	3.369	0.069	358.	0.566	682.	0.511	586.	0.439	571.	0.428
0.065	0.235	0.177	1.115	4.482	3.366	0.066	352.	0.563	683.	0.512	587.	0.439	571.	0.428
0.062	0.231	0.174	1.112	4.479	3.366	0.063	346.	0.559	684.	0.512	587.	0.440	572.	0.428
0.059	0.225	0.169	1.109	4.469	3.356	0.060	340.	0.554	685.	0.513	588.	0.440	572.	0.428
0.055	0.223	0.168	1.105	4.463	3.351	0.056	334.	0.550	686.	0.513	588.	0.440	572.	0.428
0.051	0.219	0.165	1.101	4.458	3.348	0.052	327.	0.545	686.	0.514	588.	0.441	572.	0.428
0.048	0.215	0.162	1.098	4.444	3.341	0.049	321.	0.540	687.	0.515	588.	0.441	572.	0.429
0.045	0.211	0.159	1.095	4.441	3.335	0.046	315.	0.535	688.	0.515	589.	0.441	572.	0.429
0.041	0.208	0.155	1.091	4.430	3.327	0.042	309.	0.530	689.	0.516	589.	0.441	573.	0.429
0.037	0.202	0.152	1.087	4.423	3.321	0.038	302.	0.525	689.	0.516	589.	0.442	573.	0.429

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GROUP	MODEL	MACH NO	PG (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
48.	139	7.92	149.9	1335.	15.44	14.56	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	WQ-INF	MC-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.6	0.0164	1.332	0.720	3856.	0.449E-03	0.255E-05	0.678E 06	22.58	0.0	1.00	22.58			
ZP1	PF1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/T0	TW1	TT1/T0	TW2	TT2/T0	TW3	TT3/T0
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.034	0.199	0.150	1.084	4.409	3.311	0.035	695.	0.521	690.	0.517	590.	0.442	573.	0.429
0.030	0.194	0.146	1.080	4.403	3.306	0.031	689.	0.516	691.	0.518	590.	0.442	573.	0.429
0.026	0.192	0.145	1.076	4.397	3.302	0.027	683.	0.512	692.	0.518	590.	0.442	573.	0.429
0.023	0.191	0.143	1.073	4.386	3.292	0.024	678.	0.508	692.	0.519	591.	0.443	573.	0.430
0.019	0.186	0.140	1.069	4.377	3.287	0.020	672.	0.503	692.	0.519	591.	0.443	574.	0.430
0.015	0.181	0.136	1.065	4.365	3.278	0.016	666.	0.499	694.	0.520	591.	0.443	574.	0.430
0.011	0.179	0.135	1.061	4.347	3.264	0.012	658.	0.493	695.	0.520	592.	0.443	574.	0.430
0.007	0.174	0.131	1.057	4.334	3.254	0.008	640.	0.479	696.	0.521	592.	0.444	574.	0.430
0.007	0.165	0.124	1.057	4.332	3.253	0.008	636.	0.476	700.	0.524	594.	0.445	575.	0.431

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GROUP	MODEL	PACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
49.	139	7.92	150.4	1337.	15.42	14.58	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	HMO-INF	MC-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.7	0.0164	1.336	0.722	3859.	0.450E-03	0.256E-05	0.679E 06	20.32	0.0	0.90	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
1.408	4.025	3.022	2.460	1.301	0.973	1.411	1254.	0.938	527.	0.394	547.	0.409	552.	0.413
1.378	4.031	3.029	2.458	1.294	0.971	1.409	1254.	0.938	545.	0.408	553.	0.414	554.	0.414
1.344	4.047	3.041	2.344	1.292	0.971	1.379	1254.	0.938	547.	0.409	553.	0.414	554.	0.414
1.310	4.070	3.062	2.360	1.293	0.973	1.345	1254.	0.938	548.	0.410	554.	0.414	554.	0.414
1.276	4.093	3.077	2.326	1.292	0.971	1.311	1254.	0.938	550.	0.411	554.	0.414	554.	0.415
1.242	4.112	3.094	2.292	1.291	0.971	1.277	1254.	0.938	551.	0.412	555.	0.415	554.	0.415
1.208	4.133	3.112	2.258	1.290	0.971	1.243	1254.	0.938	553.	0.414	555.	0.415	555.	0.415
1.173	4.154	3.132	2.223	1.289	0.972	1.209	1254.	0.938	555.	0.415	556.	0.415	555.	0.415
1.137	4.175	3.150	2.187	1.289	0.972	1.174	1253.	0.938	556.	0.416	556.	0.416	555.	0.415
1.103	4.200	3.169	2.153	1.287	0.971	1.138	1253.	0.937	558.	0.417	556.	0.416	555.	0.415
1.070	4.229	3.193	2.120	1.288	0.972	1.104	1254.	0.938	559.	0.418	557.	0.416	555.	0.415
1.036	4.269	3.225	2.086	1.287	0.972	1.071	1254.	0.938	561.	0.419	557.	0.417	555.	0.415
1.002	4.313	3.260	2.052	1.288	0.973	1.037	1254.	0.938	562.	0.421	557.	0.417	556.	0.416
0.967	4.345	3.289	2.017	1.284	0.972	1.003	1254.	0.938	564.	0.422	558.	0.417	556.	0.416
0.932	4.369	3.306	1.982	1.284	0.972	0.968	1254.	0.938	565.	0.423	558.	0.418	556.	0.416
0.897	4.384	3.323	1.947	1.284	0.971	0.933	1254.	0.938	567.	0.424	559.	0.418	556.	0.416
0.862	4.395	3.334	1.912	1.281	0.972	0.898	1254.	0.938	568.	0.425	559.	0.418	556.	0.416
0.826	4.394	3.335	1.878	1.280	0.972	0.863	1254.	0.938	570.	0.426	559.	0.418	556.	0.416
0.793	4.383	3.329	1.843	1.279	0.972	0.829	1254.	0.938	571.	0.427	560.	0.419	557.	0.416
0.758	4.366	3.316	1.808	1.278	0.971	0.794	1254.	0.938	573.	0.428	560.	0.419	557.	0.416
0.723	4.337	3.294	1.773	1.277	0.972	0.759	1254.	0.938	574.	0.429	561.	0.419	557.	0.417
0.688	4.293	3.259	1.738	1.276	0.972	0.724	1255.	0.938	576.	0.431	561.	0.419	557.	0.417
0.653	4.241	3.230	1.703	1.276	0.972	0.689	1254.	0.938	577.	0.432	561.	0.420	557.	0.417
0.615	4.175	3.179	1.665	1.276	0.972	0.654	1255.	0.939	579.	0.433	562.	0.420	557.	0.417
0.580	4.097	3.118	1.630	1.280	0.975	0.616	1255.	0.939	580.	0.434	562.	0.420	558.	0.417
0.548	4.015	3.051	1.598	1.482	1.128	0.581	1256.	0.939	581.	0.435	562.	0.421	558.	0.417
0.513	3.922	2.977	1.563	2.746	2.087	0.545	1256.	0.939	583.	0.436	563.	0.421	558.	0.417
0.478	3.824	2.901	1.528	3.854	2.956	0.514	1260.	0.939	584.	0.437	563.	0.421	558.	0.417
0.443	3.713	2.815	1.493	3.932	2.983	0.479	1257.	0.940	585.	0.438	563.	0.421	558.	0.418
				3.971	3.010	0.444	1257.	0.940	587.	0.439	564.	0.422	559.	0.418
				1.458	4.005	3.032	1258.	0.941	588.	0.440	564.	0.422	559.	0.418
				1.448	4.020	3.041	1258.	0.941	590.	0.441	564.	0.422	559.	0.418
				1.439	4.031	3.048	1258.	0.941	591.	0.442	565.	0.423	559.	0.418
				1.431	4.039	3.054	1259.	0.942	592.	0.443	565.	0.423	559.	0.418
				1.425	4.047	3.056	1259.	0.942	594.	0.444	566.	0.423	560.	0.419
				1.422	4.052	3.062	1259.	0.942	595.	0.445	566.	0.423	560.	0.419
				1.414	4.058	3.064	1259.	0.942	596.	0.446	566.	0.423	560.	0.419
				1.415	4.060	3.063	1259.	0.942	597.	0.447	567.	0.424	560.	0.419
				1.412	4.066	3.068	1260.	0.942	599.	0.448	567.	0.424	560.	0.419
				1.410	4.066	3.068	1260.	0.942	600.	0.449	567.	0.424	561.	0.419
				1.406	4.072	3.075	1260.	0.942	601.	0.450	568.	0.425	561.	0.420
				1.404	4.072	3.075	1260.	0.942	603.	0.451	568.	0.425	561.	0.420

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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
49.	139	7.92	149.2	1337.	15.42	14.58	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MC-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.7	0.0163	1.325	0.716	3859.	0.446E-03	0.256E-05	0.673E 06	20.32	0.0	0.90	22.58			
ZP1 (IN)	PF1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
0.351	2.950	2.227	1.401	4.075	3.077	0.352	1260.	0.943	604.	0.452	568.	0.425	561.	0.420
0.348	2.922	2.205	1.398	4.079	3.077	0.349	1260.	0.943	605.	0.453	569.	0.426	562.	0.420
0.345	2.897	2.186	1.395	4.083	3.080	0.346	1260.	0.943	606.	0.453	569.	0.426	562.	0.420
0.342	2.871	2.166	1.392	4.085	3.082	0.343	1260.	0.943	607.	0.454	569.	0.426	562.	0.420
0.339	2.842	2.145	1.389	4.085	3.084	0.340	1260.	0.943	609.	0.455	570.	0.426	562.	0.421
0.336	2.817	2.126	1.386	4.089	3.087	0.337	1261.	0.943	610.	0.456	570.	0.426	562.	0.421
0.334	2.792	2.108	1.384	4.090	3.088	0.335	1261.	0.943	611.	0.457	570.	0.427	563.	0.421
0.333	2.764	2.087	1.383	4.087	3.086	0.334	1262.	0.944	612.	0.458	571.	0.427	563.	0.421
0.330	2.742	2.071	1.380	4.092	3.092	0.331	1261.	0.943	614.	0.459	571.	0.427	563.	0.421
0.327	2.712	2.049	1.377	4.094	3.093	0.328	1261.	0.943	615.	0.460	571.	0.427	564.	0.421
0.323	2.685	2.029	1.373	4.098	3.095	0.324	1262.	0.944	616.	0.461	572.	0.428	564.	0.422
0.318	2.655	2.006	1.368	4.106	3.102	0.319	1262.	0.944	617.	0.462	572.	0.428	564.	0.422
0.314	2.624	1.981	1.364	4.110	3.103	0.315	1262.	0.943	618.	0.462	573.	0.428	564.	0.422
0.308	2.589	1.954	1.358	4.120	3.109	0.309	1263.	0.944	619.	0.463	573.	0.428	565.	0.422
0.305	2.550	1.923	1.355	4.127	3.112	0.306	1263.	0.944	620.	0.464	573.	0.428	565.	0.422
0.301	2.513	1.894	1.351	4.130	3.112	0.302	1263.	0.944	622.	0.465	574.	0.429	565.	0.422
0.298	2.481	1.871	1.348	4.133	3.117	0.299	1263.	0.944	623.	0.465	574.	0.429	566.	0.423
0.296	2.452	1.848	1.346	4.138	3.118	0.297	1263.	0.944	624.	0.466	574.	0.429	566.	0.423
0.294	2.427	1.829	1.344	4.139	3.119	0.295	1264.	0.945	625.	0.467	574.	0.429	566.	0.423
0.291	2.405	1.812	1.341	4.141	3.121	0.292	1264.	0.945	626.	0.468	575.	0.430	567.	0.424
0.288	2.379	1.790	1.338	4.146	3.119	0.289	1264.	0.945	627.	0.469	575.	0.430	567.	0.424
0.284	2.351	1.769	1.334	4.150	3.122	0.285	1265.	0.945	628.	0.470	575.	0.430	568.	0.424
0.280	2.319	1.746	1.330	4.154	3.127	0.281	1265.	0.945	630.	0.470	576.	0.430	568.	0.425
0.275	2.283	1.718	1.325	4.157	3.128	0.276	1265.	0.946	631.	0.471	576.	0.431	569.	0.425
0.270	2.243	1.687	1.320	4.161	3.129	0.271	1266.	0.946	632.	0.472	577.	0.431	569.	0.425
0.266	2.197	1.653	1.316	4.159	3.129	0.267	1266.	0.946	633.	0.473	577.	0.431	570.	0.426
0.262	2.153	1.620	1.312	4.165	3.134	0.263	1267.	0.947	634.	0.474	577.	0.431	570.	0.426
0.259	2.110	1.588	1.309	4.167	3.135	0.260	1267.	0.947	635.	0.475	577.	0.432	571.	0.427
0.255	2.063	1.552	1.305	4.171	3.138	0.256	1267.	0.947	636.	0.475	578.	0.432	571.	0.427
0.251	2.020	1.520	1.301	4.171	3.138	0.252	1268.	0.947	637.	0.476	578.	0.432	572.	0.427
0.248	1.976	1.487	1.298	4.173	3.140	0.249	1268.	0.947	638.	0.477	579.	0.432	573.	0.428
0.244	1.927	1.450	1.294	4.176	3.142	0.245	1267.	0.947	639.	0.478	579.	0.433	573.	0.428
0.242	1.881	1.415	1.292	4.176	3.142	0.243	1267.	0.947	640.	0.478	579.	0.433	574.	0.429
0.238	1.835	1.381	1.288	4.179	3.144	0.239	1267.	0.947	641.	0.479	580.	0.433	574.	0.429
0.235	1.789	1.347	1.285	4.181	3.148	0.236	1267.	0.947	642.	0.480	580.	0.433	575.	0.430
0.232	1.738	1.309	1.282	4.179	3.147	0.233	1266.	0.946	643.	0.481	580.	0.434	576.	0.430
0.228	1.695	1.276	1.278	4.183	3.149	0.229	1265.	0.945	644.	0.481	580.	0.434	576.	0.431
0.225	1.645	1.240	1.275	4.185	3.153	0.226	1263.	0.944	645.	0.482	581.	0.434	577.	0.431
0.221	1.597	1.202	1.271	4.185	3.151	0.222	1261.	0.942	646.	0.483	581.	0.434	578.	0.432
0.216	1.539	1.160	1.266	4.186	3.154	0.217	1257.	0.939	647.	0.484	582.	0.435	579.	0.433
0.212	1.484	1.119	1.262	4.191	3.160	0.213	1253.	0.936	648.	0.485	582.	0.435	580.	0.433
0.208	1.429	1.077	1.258	4.194	3.160	0.209	1248.	0.933	649.	0.485	582.	0.435	581.	0.434

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GROUP 49.	MODEL 139	MACH NO 7.92	PO(PSIA) 149.4	TO( DEG R) 1338.	ALPHA-MODEL 15.42	ALPHA-SECTOR 14.58	ALPHA-PREBEND 30.00	ROLL-MODEL 180.00	YAW 0					
T-INF (DEG R) 98.8	P-INF (PSIA) 0.0163	PO1 (PSIA) 1.326	Q-INF (PSIA) 0.717	U-INF (FT/SEC) 3860.	RHO-INF (LBM/FT3) 0.446E-03	MU-INF (LBM/FT-SEC) 0.256E-05	RE/FT (FT-1) 0.673E 06	X (IN) 20.32	Y (IN) 0.0	X/L 0.90	L (IN) 22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	LP2 (IN)	PP2 (PSIA)	PP2/PO1	ZTC (IN)	YT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.205	1.372	1.035	1.255	4.193	3.161	0.206	1243.	0.929	650.	0.486	583.	0.435	582.	0.435
0.203	1.320	0.996	1.253	4.198	3.165	0.204	1238.	0.925	651.	0.487	583.	0.436	583.	0.435
0.200	1.271	0.959	1.250	4.199	3.166	0.201	1232.	0.921	652.	0.487	583.	0.436	584.	0.436
0.198	1.222	0.922	1.246	4.199	3.168	0.197	1226.	0.916	653.	0.488	584.	0.436	585.	0.437
0.193	1.179	0.890	1.243	4.202	3.170	0.194	1220.	0.911	654.	0.489	584.	0.436	586.	0.438
0.191	1.135	0.856	1.241	4.200	3.166	0.192	1212.	0.906	655.	0.490	584.	0.437	587.	0.439
0.188	1.094	0.826	1.238	4.205	3.174	0.189	1205.	0.901	656.	0.490	585.	0.437	588.	0.440
0.185	1.053	0.795	1.235	4.205	3.174	0.186	1197.	0.895	657.	0.491	585.	0.437	590.	0.441
0.182	1.015	0.766	1.232	4.206	3.175	0.183	1189.	0.889	658.	0.492	585.	0.437	591.	0.442
0.178	0.978	0.738	1.228	4.209	3.175	0.179	1181.	0.883	659.	0.492	585.	0.438	593.	0.443
0.176	0.941	0.710	1.226	4.209	3.177	0.177	1172.	0.876	660.	0.493	586.	0.438	594.	0.444
0.172	0.908	0.686	1.222	4.209	3.180	0.173	1163.	0.869	661.	0.494	586.	0.438	596.	0.445
0.169	0.875	0.661	1.219	4.212	3.182	0.170	1154.	0.862	662.	0.495	587.	0.438	597.	0.446
0.166	0.843	0.637	1.216	4.213	3.183	0.167	1143.	0.854	663.	0.495	587.	0.439	599.	0.448
0.163	0.813	0.615	1.213	4.215	3.187	0.164	1133.	0.847	664.	0.496	587.	0.439	600.	0.449
0.161	0.783	0.592	1.211	4.218	3.186	0.162	1124.	0.840	665.	0.497	588.	0.439	602.	0.450
0.157	0.754	0.570	1.207	4.217	3.188	0.158	1114.	0.832	665.	0.497	588.	0.439	603.	0.451
0.154	0.729	0.551	1.204	4.220	3.192	0.155	1103.	0.825	666.	0.498	588.	0.440	605.	0.452
0.150	0.702	0.531	1.200	4.221	3.193	0.151	1093.	0.817	667.	0.499	589.	0.440	606.	0.453
0.147	0.681	0.515	1.197	4.222	3.194	0.148	1082.	0.809	668.	0.499	589.	0.440	607.	0.454
0.144	0.657	0.498	1.194	4.226	3.199	0.145	1070.	0.799	669.	0.500	589.	0.440	608.	0.455
0.141	0.630	0.477	1.191	4.227	3.202	0.142	1058.	0.791	670.	0.501	590.	0.441	609.	0.455
0.136	0.610	0.462	1.186	4.229	3.201	0.137	1045.	0.781	671.	0.501	590.	0.441	610.	0.456
0.133	0.588	0.445	1.183	4.231	3.205	0.134	1030.	0.770	672.	0.502	590.	0.441	611.	0.457
0.129	0.566	0.429	1.179	4.236	3.209	0.130	1016.	0.759	673.	0.503	591.	0.441	612.	0.457
0.126	0.549	0.416	1.176	4.238	3.210	0.127	1005.	0.751	673.	0.503	591.	0.442	613.	0.458
0.123	0.528	0.400	1.173	4.236	3.211	0.124	992.	0.742	674.	0.504	591.	0.442	614.	0.459
0.120	0.511	0.387	1.170	4.243	3.218	0.121	983.	0.734	675.	0.505	592.	0.442	614.	0.459
0.117	0.494	0.375	1.167	4.247	3.221	0.118	971.	0.726	676.	0.505	592.	0.442	615.	0.460
0.113	0.475	0.360	1.163	4.247	3.222	0.114	961.	0.718	677.	0.506	592.	0.443	616.	0.460
0.110	0.463	0.349	1.160	4.251	3.226	0.111	952.	0.711	678.	0.507	593.	0.443	616.	0.461
0.107	0.445	0.338	1.157	4.251	3.226	0.108	942.	0.704	679.	0.507	593.	0.443	617.	0.461
0.104	0.431	0.327	1.154	4.255	3.230	0.105	932.	0.696	679.	0.508	593.	0.443	618.	0.462
0.100	0.419	0.318	1.150	4.255	3.230	0.101	921.	0.688	680.	0.508	594.	0.444	618.	0.462
0.097	0.405	0.307	1.147	4.262	3.237	0.098	909.	0.679	681.	0.509	594.	0.444	619.	0.463
0.094	0.394	0.299	1.144	4.268	3.242	0.095	899.	0.672	682.	0.510	594.	0.444	620.	0.463
0.090	0.383	0.291	1.140	4.272	3.247	0.091	888.	0.664	683.	0.510	595.	0.444	621.	0.464
0.087	0.370	0.281	1.137	4.272	3.247	0.088	879.	0.657	684.	0.511	595.	0.445	621.	0.464
0.084	0.360	0.273	1.134	4.276	3.250	0.085	870.	0.650	684.	0.512	595.	0.445	622.	0.465
0.079	0.350	0.266	1.129	4.281	3.254	0.080	859.	0.642	685.	0.512	596.	0.445	623.	0.466
0.076	0.341	0.259	1.126	4.282	3.255	0.077	851.	0.636	686.	0.513	596.	0.445	624.	0.467
0.073	0.332	0.252	1.123	4.286	3.260	0.074	842.	0.629	687.	0.513	596.	0.446	625.	0.467

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GROUP	MODEL	MACH NO.	P0 (PSIA)	T0 (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
49	139	7.92	148.1	1338.	15.42	14.58	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.6	0.0162	1.315	0.711	3860.	0.442E-03	0.256E-05	0.667E 06	20.32	0.0	0.90	22.58			
ZP1	PF1	PP1/P01	ZF2	FF2	PP2/P01	ZI2	TI2	TI2/T0	TW1	TW1/T0	TW2	TW2/T0	TW3	TW3/T0
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.070	0.322	0.245	1.120	4.240	3.263	0.071	832.	0.622	688.	0.514	597.	0.446	626.	0.468
0.067	0.313	0.238	1.117	4.293	3.265	0.068	823.	0.615	688.	0.515	597.	0.446	627.	0.469
0.063	0.305	0.232	1.113	4.299	3.270	0.064	814.	0.609	689.	0.515	597.	0.447	628.	0.469
0.059	0.299	0.227	1.109	4.305	3.274	0.060	805.	0.602	690.	0.516	598.	0.447	629.	0.470
0.055	0.292	0.222	1.105	4.315	3.282	0.056	795.	0.594	691.	0.516	598.	0.447	630.	0.471
0.050	0.284	0.216	1.100	4.319	3.285	0.051	783.	0.585	692.	0.517	598.	0.447	631.	0.472
0.046	0.277	0.210	1.096	4.326	3.292	0.047	773.	0.578	692.	0.518	599.	0.447	632.	0.472
0.042	0.270	0.205	1.092	4.333	3.295	0.043	762.	0.570	693.	0.518	599.	0.448	633.	0.473
0.038	0.264	0.200	1.088	4.338	3.299	0.039	753.	0.563	694.	0.519	599.	0.448	634.	0.474
0.036	0.259	0.197	1.086	4.345	3.307	0.037	745.	0.557	695.	0.519	600.	0.448	635.	0.474
0.033	0.254	0.193	1.083	4.350	3.309	0.034	738.	0.552	695.	0.520	600.	0.448	635.	0.475
0.030	0.246	0.187	1.080	4.353	3.311	0.031	732.	0.547	696.	0.520	600.	0.449	636.	0.475
0.026	0.243	0.185	1.076	4.359	3.317	0.027	724.	0.541	697.	0.521	601.	0.449	637.	0.476
0.023	0.237	0.180	1.073	4.366	3.323	0.024	717.	0.536	698.	0.522	601.	0.449	637.	0.476
0.019	0.231	0.175	1.069	4.370	3.324	0.020	709.	0.530	699.	0.522	601.	0.450	638.	0.477
0.015	0.227	0.173	1.065	4.376	3.331	0.016	700.	0.523	699.	0.523	602.	0.450	638.	0.477
0.011	0.223	0.170	1.061	4.382	3.335	0.012	689.	0.515	700.	0.523	602.	0.450	639.	0.477
0.007	0.214	0.163	1.057	4.388	3.342	0.008	627.	0.468	702.	0.524	603.	0.450	640.	0.478



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GROUP 50.	MODEL 139	MACH NO 7.92	PO(PSIA) 149.5	TO(DEG R) 1340.	ALPHA-MODEL 15.39	ALPHA-SECTOR 14.61	ALPHA-PREBEND 30.00	ROLL-MODEL 180.00	YAW 0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	O-INF (PSIA)	U-INF (FT/SEC)	RMQ-INF (LBM/FT3)	PU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
58.9	0.0163	1.327	0.717	3863.	0.446E-03	0.256E-05	0.672E 06	18.06	0.0	0.80	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
1.348	3.890	2.924	2.401	1.290	0.972	1.352	1255.	0.936	534.	0.399	548.	0.409	556.	0.415
1.318	3.849	2.934	2.368	1.292	0.972	1.349	1254.	0.936	554.	0.413	555.	0.414	558.	0.417
1.283	3.918	2.946	2.333	1.293	0.973	1.284	1254.	0.936	555.	0.415	555.	0.414	559.	0.417
1.250	3.942	2.966	2.300	1.294	0.974	1.251	1254.	0.936	557.	0.416	556.	0.415	559.	0.417
1.218	3.970	2.987	2.268	1.294	0.974	1.219	1254.	0.936	559.	0.417	556.	0.415	559.	0.417
1.185	4.001	3.011	2.235	1.294	0.974	1.186	1255.	0.936	561.	0.418	556.	0.415	559.	0.417
1.152	4.037	3.039	2.202	1.294	0.974	1.153	1254.	0.936	562.	0.420	557.	0.416	559.	0.417
1.119	4.071	3.063	2.169	1.293	0.973	1.120	1255.	0.937	564.	0.421	557.	0.416	559.	0.417
1.085	4.104	3.090	2.135	1.291	0.972	1.086	1254.	0.936	566.	0.422	558.	0.416	560.	0.418
1.052	4.138	3.116	2.102	1.291	0.972	1.053	1255.	0.936	567.	0.423	559.	0.417	560.	0.418
1.020	4.165	3.138	2.070	1.291	0.973	1.021	1255.	0.936	569.	0.425	559.	0.417	560.	0.418
0.986	4.180	3.149	2.038	1.293	0.974	0.989	1255.	0.936	571.	0.426	559.	0.417	560.	0.418
0.956	4.181	3.150	2.006	1.293	0.974	0.957	1255.	0.937	572.	0.427	560.	0.418	560.	0.418
0.924	4.175	3.150	1.974	1.292	0.974	0.925	1255.	0.936	574.	0.428	560.	0.418	561.	0.418
0.890	4.162	3.140	1.940	1.289	0.972	0.891	1255.	0.936	576.	0.430	561.	0.418	561.	0.419
0.857	4.145	3.130	1.907	1.288	0.972	0.858	1255.	0.936	577.	0.431	561.	0.419	561.	0.419
0.824	4.129	3.117	1.874	1.288	0.972	0.825	1255.	0.937	579.	0.432	562.	0.419	562.	0.419
0.791	4.112	3.107	1.841	1.287	0.972	0.792	1255.	0.937	580.	0.433	562.	0.419	562.	0.419
0.757	4.095	3.094	1.807	1.287	0.972	0.758	1255.	0.937	582.	0.434	562.	0.420	562.	0.420
0.724	4.073	3.079	1.774	1.287	0.973	0.725	1255.	0.937	584.	0.435	563.	0.420	562.	0.420
0.688	4.045	3.060	1.738	1.285	0.972	0.689	1255.	0.936	585.	0.436	563.	0.420	563.	0.420
0.654	4.016	3.038	1.704	1.284	0.971	0.655	1256.	0.937	587.	0.437	564.	0.420	563.	0.420
0.624	3.986	3.017	1.674	1.283	0.971	0.625	1256.	0.937	588.	0.439	564.	0.421	563.	0.420
0.591	3.951	2.995	1.641	1.284	0.973	0.592	1256.	0.937	590.	0.440	564.	0.421	563.	0.420
0.557	3.915	2.970	1.607	1.283	0.973	0.558	1256.	0.937	591.	0.441	565.	0.422	564.	0.421
0.524	3.868	2.934	1.574	1.280	0.971	0.525	1256.	0.937	593.	0.442	565.	0.422	564.	0.421
0.491	3.818	2.900	1.541	1.281	0.973	0.492	1256.	0.937	594.	0.443	566.	0.422	564.	0.421
0.454	3.761	2.857	1.504	1.386	1.053	0.455	1257.	0.937	595.	0.444	566.	0.422	565.	0.421
0.423	3.695	2.808	1.473	1.4219	1.687	0.424	1257.	0.937	597.	0.445	566.	0.422	565.	0.421
			1.440	3.768	2.866	0.391	1258.	0.938	598.	0.446	567.	0.423	565.	0.421
			1.407	3.838	2.919	0.356	1259.	0.939	600.	0.447	567.	0.423	565.	0.422
			1.397	3.849	2.929	0.348	1259.	0.939	601.	0.448	568.	0.423	566.	0.422
			1.390	3.856	2.938	0.341	1260.	0.939	602.	0.449	568.	0.424	566.	0.422
			1.383	3.862	2.945	0.334	1260.	0.940	604.	0.450	569.	0.424	566.	0.422
			1.380	3.863	2.946	0.331	1260.	0.940	605.	0.451	569.	0.424	567.	0.423
0.328	3.214	2.453	1.378	3.863	2.948	0.329	1260.	0.940	607.	0.452	569.	0.424	567.	0.423
0.326	3.189	2.437	1.376	3.863	2.952	0.327	1260.	0.940	608.	0.453	570.	0.425	567.	0.423
0.322	3.165	2.421	1.372	3.863	2.954	0.323	1260.	0.940	609.	0.454	570.	0.425	568.	0.423
0.320	3.141	2.402	1.370	3.864	2.955	0.321	1260.	0.940	610.	0.455	570.	0.425	568.	0.424
0.317	3.121	2.389	1.367	3.866	2.958	0.318	1261.	0.940	612.	0.456	571.	0.426	568.	0.424
0.314	3.099	2.375	1.364	3.866	2.962	0.315	1261.	0.940	613.	0.457	571.	0.426	569.	0.424
									614.	0.458	571.	0.426	569.	0.424

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 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
50.	139	7.92	146.9	1341.	15.40	14.60	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	RHO-INF	MU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
99.0	0.0161	1.304	0.705	3864.	0.437E-03	0.256E-05	0.660E 06	18.06	0.0	0.80	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.311	3.078	2.360	1.361	3.868	2.966	0.312	1261.	0.940	616.	0.459	572.	0.426	569.	0.425
0.308	3.059	2.345	1.358	3.869	2.967	0.309	1261.	0.940	617.	0.460	572.	0.427	570.	0.425
0.305	3.034	2.330	1.355	3.868	2.970	0.306	1261.	0.940	618.	0.461	572.	0.427	570.	0.425
0.302	3.012	2.313	1.352	3.869	2.971	0.303	1261.	0.941	619.	0.462	573.	0.427	570.	0.425
0.299	2.990	2.297	1.349	3.873	2.976	0.300	1262.	0.941	621.	0.463	573.	0.427	571.	0.426
0.297	2.969	2.281	1.347	3.877	2.979	0.298	1262.	0.941	622.	0.464	573.	0.428	571.	0.426
0.294	2.946	2.262	1.344	3.884	2.982	0.295	1262.	0.941	623.	0.465	574.	0.428	571.	0.426
0.291	2.928	2.247	1.341	3.893	2.987	0.292	1262.	0.941	624.	0.465	574.	0.428	572.	0.426
0.288	2.907	2.229	1.338	3.899	2.989	0.289	1262.	0.941	625.	0.466	575.	0.429	572.	0.427
0.285	2.891	2.215	1.335	3.908	2.995	0.286	1263.	0.942	627.	0.467	575.	0.429	573.	0.427
0.283	2.871	2.197	1.333	3.913	2.994	0.284	1263.	0.942	628.	0.468	575.	0.429	573.	0.427
0.280	2.848	2.178	1.330	3.916	2.994	0.281	1263.	0.942	629.	0.469	576.	0.429	573.	0.428
0.277	2.827	2.160	1.327	3.925	2.999	0.278	1263.	0.942	630.	0.470	576.	0.429	574.	0.428
0.273	2.803	2.141	1.323	3.931	3.002	0.274	1264.	0.942	631.	0.471	576.	0.430	574.	0.428
0.269	2.774	2.117	1.319	3.936	3.004	0.270	1264.	0.942	632.	0.472	577.	0.430	575.	0.428
0.265	2.745	2.095	1.315	3.943	3.009	0.266	1264.	0.943	634.	0.472	577.	0.430	575.	0.429
0.261	2.714	2.070	1.311	3.948	3.011	0.262	1265.	0.943	635.	0.473	577.	0.431	575.	0.429
0.256	2.677	2.042	1.306	3.949	3.011	0.257	1265.	0.943	636.	0.474	578.	0.431	576.	0.429
0.249	2.635	2.008	1.299	3.957	3.016	0.250	1266.	0.944	637.	0.475	578.	0.431	576.	0.430
0.246	2.591	1.975	1.296	3.966	3.022	0.247	1266.	0.944	638.	0.476	579.	0.431	577.	0.430
0.242	2.547	1.941	1.292	3.967	3.024	0.243	1267.	0.944	639.	0.477	579.	0.432	577.	0.430
0.238	2.502	1.905	1.288	3.967	3.021	0.239	1267.	0.945	640.	0.477	579.	0.432	577.	0.431
0.234	2.460	1.875	1.284	3.973	3.028	0.235	1268.	0.945	641.	0.478	580.	0.432	578.	0.431
0.231	2.414	1.840	1.281	3.975	3.029	0.232	1268.	0.946	642.	0.479	580.	0.432	578.	0.431
0.228	2.368	1.803	1.278	3.976	3.028	0.229	1268.	0.946	644.	0.480	580.	0.433	579.	0.432
0.224	2.323	1.770	1.274	3.980	3.033	0.225	1269.	0.947	645.	0.481	581.	0.433	579.	0.432
0.220	2.272	1.731	1.270	3.983	3.035	0.221	1269.	0.947	646.	0.481	581.	0.433	580.	0.432
0.217	2.217	1.689	1.267	3.983	3.035	0.218	1270.	0.947	647.	0.482	581.	0.434	580.	0.433
0.212	2.155	1.641	1.262	3.987	3.036	0.213	1270.	0.947	648.	0.483	582.	0.434	580.	0.433
0.209	2.090	1.593	1.259	3.989	3.040	0.210	1271.	0.947	649.	0.484	582.	0.434	581.	0.433
0.206	2.030	1.547	1.256	3.995	3.045	0.207	1270.	0.947	650.	0.485	582.	0.434	581.	0.434
0.203	1.967	1.500	1.253	3.995	3.047	0.204	1269.	0.947	651.	0.485	583.	0.435	582.	0.434
0.201	1.909	1.456	1.251	3.997	3.048	0.202	1269.	0.946	652.	0.486	583.	0.435	582.	0.434
0.196	1.849	1.410	1.246	4.001	3.051	0.197	1267.	0.945	653.	0.487	583.	0.435	583.	0.435
0.192	1.782	1.359	1.242	4.003	3.053	0.193	1265.	0.943	654.	0.488	584.	0.435	583.	0.435
0.188	1.712	1.307	1.238	4.006	3.057	0.189	1261.	0.940	655.	0.488	584.	0.435	584.	0.435
0.186	1.643	1.253	1.236	4.011	3.059	0.187	1258.	0.938	656.	0.489	584.	0.436	584.	0.436
0.182	1.572	1.199	1.232	4.012	3.060	0.183	1253.	0.934	657.	0.490	585.	0.436	585.	0.436
0.178	1.505	1.148	1.228	4.019	3.067	0.179	1246.	0.929	658.	0.491	585.	0.436	585.	0.436
0.176	1.439	1.098	1.226	4.027	3.071	0.177	1241.	0.925	659.	0.491	585.	0.437	586.	0.437
0.173	1.376	1.049	1.223	4.028	3.072	0.174	1235.	0.921	660.	0.492	586.	0.437	586.	0.437
0.170	1.313	1.001	1.220	4.037	3.077	0.171	1227.	0.915	661.	0.493	586.	0.437	587.	0.438

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ARO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/RI C-9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
50.	139	7.92	147.9	1341.	15.40	14.60	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	RHO-INF	PL-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
99.0	0.0162	1.313	0.710	3864.	0.440E-03	0.256E-05	0.664E 06	18.06	0.0	0.80	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.168	1.258	0.958	1.218	4.042	3.078	0.169	1220.	0.910	662.	0.493	586.	0.437	587.	0.438
0.165	1.203	0.916	1.215	4.045	3.081	0.166	1211.	0.903	663.	0.494	587.	0.438	588.	0.439
0.163	1.151	0.876	1.213	4.050	3.082	0.164	1203.	0.897	664.	0.495	587.	0.438	589.	0.439
0.160	1.101	0.837	1.210	4.054	3.083	0.161	1193.	0.890	665.	0.496	588.	0.438	589.	0.439
0.157	1.055	0.803	1.207	4.059	3.089	0.158	1184.	0.883	666.	0.496	588.	0.438	590.	0.440
0.154	1.008	0.766	1.204	4.062	3.089	0.155	1172.	0.874	667.	0.497	588.	0.439	591.	0.440
0.151	0.963	0.732	1.201	4.069	3.095	0.152	1159.	0.864	667.	0.498	589.	0.439	591.	0.441
0.148	0.922	0.701	1.198	4.071	3.097	0.149	1146.	0.855	668.	0.498	589.	0.439	592.	0.441
0.145	0.879	0.668	1.195	4.077	3.101	0.146	1130.	0.843	669.	0.499	589.	0.439	593.	0.442
0.142	0.835	0.635	1.192	4.082	3.105	0.143	1115.	0.832	670.	0.500	590.	0.440	593.	0.442
0.139	0.796	0.605	1.189	4.083	3.103	0.140	1102.	0.821	671.	0.501	590.	0.440	594.	0.443
0.136	0.761	0.579	1.186	4.085	3.105	0.137	1090.	0.813	672.	0.501	590.	0.440	595.	0.444
0.132	0.728	0.553	1.182	4.091	3.110	0.133	1074.	0.801	673.	0.502	591.	0.440	595.	0.444
0.129	0.694	0.527	1.179	4.093	3.111	0.130	1059.	0.790	674.	0.503	591.	0.441	596.	0.445
0.126	0.662	0.503	1.176	4.095	3.110	0.127	1045.	0.780	675.	0.503	591.	0.441	597.	0.445
0.122	0.633	0.481	1.172	4.101	3.117	0.123	1032.	0.769	676.	0.504	592.	0.441	598.	0.446
0.120	0.604	0.459	1.170	4.102	3.118	0.121	1018.	0.759	677.	0.505	592.	0.441	598.	0.446
0.116	0.579	0.440	1.166	4.105	3.120	0.117	1006.	0.750	678.	0.505	592.	0.442	599.	0.446
0.112	0.556	0.423	1.162	4.107	3.122	0.113	991.	0.739	678.	0.506	593.	0.442	599.	0.447
0.109	0.532	0.405	1.159	4.109	3.123	0.110	978.	0.729	679.	0.506	593.	0.442	600.	0.447
0.106	0.511	0.389	1.156	4.113	3.126	0.107	963.	0.718	680.	0.507	593.	0.442	600.	0.448
0.102	0.490	0.373	1.152	4.117	3.129	0.103	946.	0.706	681.	0.508	594.	0.443	601.	0.448
0.098	0.470	0.358	1.148	4.120	3.134	0.099	930.	0.693	682.	0.508	594.	0.443	601.	0.449
0.095	0.451	0.343	1.145	4.124	3.137	0.096	917.	0.684	683.	0.509	594.	0.443	602.	0.449
0.090	0.435	0.331	1.140	4.127	3.139	0.091	906.	0.675	684.	0.510	595.	0.443	602.	0.449
0.088	0.420	0.320	1.138	4.131	3.142	0.089	898.	0.669	684.	0.510	595.	0.444	603.	0.449
0.084	0.404	0.307	1.134	4.131	3.142	0.085	888.	0.662	685.	0.511	595.	0.444	603.	0.450
0.081	0.392	0.298	1.131	4.135	3.145	0.082	878.	0.655	686.	0.512	596.	0.444	603.	0.450
0.075	0.379	0.288	1.125	4.143	3.151	0.076	864.	0.644	687.	0.512	596.	0.445	604.	0.450
0.070	0.366	0.279	1.120	4.146	3.156	0.071	848.	0.633	688.	0.513	596.	0.445	604.	0.450
0.064	0.356	0.270	1.114	4.154	3.159	0.065	832.	0.620	689.	0.513	597.	0.445	604.	0.450
0.053	0.345	0.263	1.108	4.158	3.165	0.059	816.	0.609	689.	0.514	597.	0.445	604.	0.451
0.052	0.334	0.254	1.102	4.165	3.170	0.053	803.	0.598	690.	0.515	597.	0.445	605.	0.451
0.048	0.324	0.247	1.098	4.169	3.173	0.049	790.	0.589	691.	0.515	598.	0.446	605.	0.451
0.042	0.315	0.240	1.092	4.172	3.178	0.043	778.	0.580	692.	0.516	598.	0.446	605.	0.451
0.036	0.309	0.235	1.086	4.178	3.182	0.037	765.	0.571	693.	0.517	598.	0.446	606.	0.452
0.031	0.300	0.228	1.081	4.180	3.183	0.032	753.	0.561	693.	0.517	599.	0.446	606.	0.451
0.026	0.293	0.223	1.076	4.185	3.187	0.027	741.	0.552	694.	0.517	599.	0.446	606.	0.452
0.021	0.286	0.218	1.071	4.188	3.191	0.022	728.	0.543	695.	0.518	599.	0.447	606.	0.452
0.015	0.277	0.211	1.065	4.186	3.188	0.016	715.	0.533	696.	0.519	600.	0.447	607.	0.452
0.011	0.271	0.206	1.061	4.187	3.189	0.012	699.	0.521	697.	0.519	600.	0.447	607.	0.452
0.011	0.262	0.200	1.061	4.190	3.191	0.012	688.	0.513	698.	0.520	601.	0.448	607.	0.453

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 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
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GRUP	MODEL	MACH NO	PG (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
51.	139	7.92	158.5	1344.	15.45	14.55	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	HHC-INF	PC-INF	RE/FT	X	Y					
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)					
99.2	0.0173	1.408	0.761	3669.	0.471E-03	0.257E-05	0.710E 06	15.81	0.0					
X/L	L													
0.70	22.58													
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PC1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
			2.401	1.370	0.973	1.352	1258.	0.936	509.	0.378	532.	0.396	547.	0.407
			2.373	1.372	0.973	1.324	1260.	0.938	510.	0.380	533.	0.397	548.	0.407
			2.374	1.286	0.973	1.325	1258.	0.936	525.	0.391	532.	0.396	547.	0.407
1.324	3.667	2.789	2.374	1.280	0.974	1.325	1258.	0.936	547.	0.407	539.	0.401	549.	0.408
1.306	3.670	2.793	2.356	1.279	0.973	1.307	1257.	0.935	545.	0.408	540.	0.401	549.	0.409
1.272	3.621	2.803	2.322	1.279	0.974	1.273	1258.	0.936	551.	0.410	540.	0.402	549.	0.409
1.240	3.658	2.818	2.290	1.277	0.973	1.241	1258.	0.936	552.	0.411	540.	0.402	550.	0.409
1.207	3.719	2.836	2.257	1.277	0.974	1.208	1258.	0.936	554.	0.412	541.	0.402	550.	0.409
1.174	3.746	2.859	2.224	1.276	0.974	1.175	1258.	0.936	556.	0.414	542.	0.403	550.	0.409
1.141	3.783	2.891	2.191	1.275	0.975	1.142	1258.	0.936	558.	0.415	542.	0.403	551.	0.410
1.107	3.826	2.924	2.157	1.277	0.976	1.108	1258.	0.936	559.	0.416	542.	0.404	551.	0.410
1.072	3.858	2.950	2.122	1.275	0.975	1.073	1259.	0.936	561.	0.417	543.	0.404	551.	0.410
1.039	3.885	2.969	2.089	1.277	0.976	1.040	1258.	0.936	563.	0.419	543.	0.404	551.	0.410
1.006	3.901	2.981	2.056	1.275	0.975	1.007	1259.	0.937	564.	0.420	544.	0.405	552.	0.410
0.973	3.916	2.993	2.023	1.276	0.975	0.974	1258.	0.936	566.	0.421	544.	0.405	552.	0.411
0.941	3.924	2.999	1.991	1.276	0.975	0.942	1259.	0.936	568.	0.422	545.	0.405	552.	0.411
0.907	3.928	3.002	1.957	1.277	0.976	0.908	1259.	0.937	569.	0.424	545.	0.406	552.	0.411
0.873	3.925	3.000	1.923	1.275	0.975	0.874	1259.	0.937	571.	0.425	546.	0.406	552.	0.411
0.839	3.922	2.997	1.889	1.275	0.974	0.840	1259.	0.937	572.	0.426	546.	0.406	553.	0.411
0.805	3.920	2.996	1.855	1.277	0.976	0.806	1259.	0.937	574.	0.427	547.	0.407	553.	0.411
0.771	3.914	2.993	1.821	1.275	0.975	0.772	1259.	0.937	576.	0.428	547.	0.407	553.	0.412
0.737	3.900	2.983	1.787	1.274	0.975	0.738	1259.	0.937	577.	0.430	548.	0.407	553.	0.412
0.704	3.881	2.968	1.754	1.274	0.975	0.705	1259.	0.937	579.	0.431	548.	0.408	554.	0.412
0.669	3.859	2.953	1.719	1.278	0.978	0.670	1260.	0.937	580.	0.432	548.	0.408	554.	0.412
0.635	3.831	2.930	1.685	1.279	0.978	0.636	1260.	0.937	582.	0.433	549.	0.408	554.	0.412
0.598	3.795	2.900	1.648	1.278	0.977	0.599	1260.	0.937	583.	0.434	549.	0.409	554.	0.412
0.564	3.753	2.868	1.614	1.279	0.977	0.565	1260.	0.937	585.	0.435	550.	0.409	555.	0.413
0.529	3.704	2.829	1.579	1.280	0.978	0.530	1260.	0.937	586.	0.436	550.	0.409	555.	0.413
0.497	3.645	2.783	1.547	1.280	0.976	0.498	1260.	0.938	588.	0.437	550.	0.410	555.	0.413
0.465	3.589	2.739	1.515	1.280	0.976	0.466	1261.	0.938	589.	0.439	551.	0.410	555.	0.413
0.431	3.523	2.689	1.481	1.280	0.976	0.432	1261.	0.938	591.	0.440	551.	0.410	556.	0.413
0.397	3.453	2.635	1.447	1.281	0.977	0.398	1261.	0.938	592.	0.441	552.	0.410	556.	0.414
			1.412	1.282	0.985	0.363	1262.	0.939	594.	0.442	552.	0.411	556.	0.414
			1.393	1.446	1.104	0.344	1262.	0.939	595.	0.443	553.	0.411	556.	0.414
			1.385	1.623	1.239	0.336	1262.	0.939	596.	0.444	553.	0.412	557.	0.414
			1.378	1.871	1.426	0.329	1263.	0.940	598.	0.445	553.	0.412	557.	0.414
			1.370	2.207	1.680	0.321	1263.	0.940	599.	0.446	554.	0.412	557.	0.414
			1.367	2.370	1.801	0.318	1263.	0.940	601.	0.447	554.	0.412	557.	0.415
0.315	3.035	2.305	1.365	2.548	1.935	0.316	1263.	0.940	602.	0.448	554.	0.413	557.	0.415
0.312	3.014	2.288	1.362	2.725	2.068	0.313	1263.	0.940	603.	0.449	555.	0.413	558.	0.415
0.308	2.991	2.269	1.358	3.034	2.302	0.309	1263.	0.940	605.	0.450	556.	0.413	558.	0.415
0.304	2.971	2.251	1.354	3.298	2.498	0.305	1264.	0.940	606.	0.451	556.	0.414	558.	0.415

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GROUP 51.	MODEL 139	MACH NO 7.92	PO(PSIA) 148.8	TO(DEG R) 1344.	ALPHA-MODEL 15.42	ALPHA-SECTOR 14.58	ALPHA-PREBEND 30.00	ROLL-MODEL 180.00	YAW 0					
T-INF (DEG R)	P-INF (PSIA)	POI (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	HFO-INF (LBM/FT3)	PU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
59.2	0.0163	1.321	0.714	3869.	0.442E-03	0.257E-05	0.666E 06	15.81	0.0	0.70	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.301	2.452	2.234	1.351	3.480	2.634	0.302	1264.	0.940	607.	0.452	556.	0.414	558.	0.415
0.297	2.434	2.221	1.347	3.600	2.725	0.298	1264.	0.940	609.	0.453	556.	0.414	558.	0.415
0.295	2.915	2.205	1.345	3.672	2.778	0.296	1264.	0.940	610.	0.454	557.	0.414	559.	0.416
0.293	2.849	2.192	1.343	3.722	2.814	0.294	1264.	0.941	611.	0.455	557.	0.415	559.	0.416
0.290	2.884	2.180	1.340	3.746	2.832	0.291	1264.	0.940	612.	0.456	558.	0.415	559.	0.416
0.288	2.868	2.167	1.338	3.767	2.846	0.289	1264.	0.941	614.	0.457	558.	0.415	559.	0.416
0.285	2.853	2.155	1.335	3.777	2.854	0.286	1264.	0.941	615.	0.458	559.	0.416	559.	0.416
0.281	2.835	2.142	1.331	3.779	2.855	0.282	1265.	0.941	616.	0.459	559.	0.416	560.	0.416
0.278	2.818	2.128	1.328	3.785	2.857	0.279	1265.	0.941	617.	0.459	559.	0.416	560.	0.417
0.275	2.798	2.114	1.325	3.785	2.859	0.276	1265.	0.941	619.	0.460	560.	0.416	560.	0.417
0.273	2.780	2.099	1.323	3.789	2.860	0.274	1265.	0.941	620.	0.461	560.	0.417	560.	0.417
0.269	2.760	2.083	1.319	3.786	2.858	0.270	1265.	0.941	621.	0.462	561.	0.417	560.	0.417
0.266	2.742	2.070	1.316	3.790	2.861	0.267	1265.	0.941	622.	0.463	561.	0.417	561.	0.417
0.262	2.722	2.055	1.312	3.791	2.862	0.263	1266.	0.942	624.	0.464	561.	0.418	561.	0.417
0.257	2.694	2.036	1.307	3.792	2.865	0.258	1266.	0.942	625.	0.465	562.	0.418	561.	0.418
0.255	2.673	2.014	1.305	3.795	2.870	0.256	1266.	0.942	626.	0.466	562.	0.418	561.	0.418
0.253	2.652	2.004	1.303	3.801	2.871	0.254	1266.	0.942	627.	0.467	562.	0.418	562.	0.418
0.251	2.632	1.988	1.301	3.800	2.871	0.252	1266.	0.942	628.	0.467	563.	0.419	562.	0.418
0.248	2.614	1.975	1.298	3.802	2.872	0.249	1266.	0.942	629.	0.468	563.	0.419	562.	0.418
0.246	2.597	1.962	1.296	3.802	2.872	0.247	1267.	0.943	631.	0.469	563.	0.419	562.	0.418
0.243	2.580	1.951	1.293	3.801	2.874	0.244	1267.	0.942	632.	0.470	564.	0.419	563.	0.419
0.240	2.562	1.937	1.290	3.803	2.875	0.241	1267.	0.943	633.	0.471	564.	0.420	563.	0.419
0.236	2.548	1.927	1.286	3.808	2.880	0.237	1267.	0.943	634.	0.472	564.	0.420	563.	0.419
0.233	2.528	1.912	1.283	3.806	2.879	0.234	1267.	0.943	635.	0.473	565.	0.420	563.	0.419
0.230	2.510	1.899	1.280	3.811	2.883	0.231	1267.	0.943	636.	0.473	565.	0.421	564.	0.419
0.226	2.488	1.882	1.276	3.809	2.882	0.227	1268.	0.943	637.	0.474	566.	0.421	564.	0.419
0.222	2.463	1.863	1.272	3.811	2.883	0.223	1268.	0.944	638.	0.475	566.	0.421	564.	0.420
0.219	2.441	1.848	1.269	3.814	2.887	0.220	1268.	0.944	640.	0.476	566.	0.421	564.	0.420
0.215	2.416	1.824	1.265	3.815	2.888	0.216	1268.	0.944	641.	0.477	567.	0.422	565.	0.420
0.211	2.388	1.808	1.261	3.818	2.890	0.212	1268.	0.944	642.	0.477	567.	0.422	565.	0.420
0.207	2.364	1.791	1.257	3.820	2.893	0.208	1270.	0.945	643.	0.478	568.	0.422	565.	0.420
0.205	2.339	1.772	1.255	3.824	2.896	0.206	1270.	0.945	644.	0.479	568.	0.423	565.	0.421
0.202	2.314	1.754	1.252	3.823	2.898	0.203	1270.	0.945	645.	0.480	568.	0.423	566.	0.421
0.199	2.289	1.735	1.249	3.824	2.898	0.200	1270.	0.945	646.	0.481	569.	0.423	566.	0.421
0.195	2.261	1.715	1.245	3.831	2.906	0.196	1271.	0.945	647.	0.481	569.	0.423	566.	0.421
0.192	2.226	1.688	1.242	3.830	2.905	0.193	1271.	0.946	648.	0.482	570.	0.424	567.	0.422
0.189	2.195	1.665	1.239	3.830	2.905	0.190	1272.	0.946	649.	0.483	570.	0.424	567.	0.422
0.186	2.163	1.642	1.236	3.832	2.909	0.187	1272.	0.947	650.	0.484	570.	0.424	567.	0.422
0.183	2.126	1.614	1.233	3.834	2.910	0.184	1273.	0.947	651.	0.484	571.	0.425	567.	0.422
0.178	2.085	1.583	1.228	3.841	2.916	0.179	1273.	0.947	652.	0.485	571.	0.425	568.	0.422
0.174	2.039	1.544	1.224	3.840	2.917	0.175	1274.	0.948	653.	0.486	572.	0.425	568.	0.423
0.170	1.994	1.515	1.220	3.848	2.922	0.171	1274.	0.948	654.	0.487	572.	0.425	568.	0.423

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GROUP	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
51.	139	7.92	148.2	1344.	15.42	14.58	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	MO-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
99.2	0.0162	1.316	0.711	3869.	0.440E-03	0.257E-05	0.663E 06	15.81	0.0	0.70	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	T*1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.164	1.944	1.478	1.214	3.854	2.929	0.165	1274.	0.948	655.	0.487	572.	0.426	569.	0.423
0.161	1.889	1.436	1.211	3.858	2.932	0.162	1274.	0.948	656.	0.488	572.	0.426	569.	0.423
0.157	1.837	1.396	1.207	3.864	2.937	0.158	1274.	0.948	657.	0.489	573.	0.426	569.	0.423
0.155	1.776	1.351	1.205	3.868	2.942	0.156	1274.	0.948	658.	0.490	573.	0.427	569.	0.424
0.151	1.718	1.307	1.201	3.867	2.943	0.152	1273.	0.947	659.	0.490	574.	0.427	570.	0.424
0.147	1.661	1.264	1.197	3.874	2.949	0.148	1271.	0.946	660.	0.491	574.	0.427	570.	0.424
0.144	1.604	1.221	1.194	3.880	2.953	0.145	1269.	0.944	661.	0.492	574.	0.427	570.	0.424
0.141	1.547	1.178	1.191	3.885	2.959	0.142	1266.	0.942	662.	0.493	575.	0.428	571.	0.425
0.138	1.490	1.135	1.188	3.889	2.962	0.139	1262.	0.939	663.	0.493	575.	0.428	571.	0.425
0.135	1.435	1.094	1.185	3.893	2.967	0.136	1259.	0.936	664.	0.494	575.	0.428	571.	0.425
0.131	1.376	1.049	1.181	3.895	2.970	0.132	1253.	0.932	665.	0.495	576.	0.428	572.	0.425
0.128	1.320	1.007	1.178	3.902	2.976	0.129	1247.	0.928	666.	0.495	576.	0.429	572.	0.426
0.125	1.269	0.968	1.175	3.905	2.978	0.126	1240.	0.923	667.	0.496	576.	0.429	572.	0.426
0.122	1.216	0.928	1.172	3.908	2.982	0.123	1233.	0.918	668.	0.497	577.	0.429	573.	0.426
0.119	1.166	0.891	1.169	3.912	2.983	0.120	1225.	0.912	668.	0.497	577.	0.430	573.	0.426
0.115	1.119	0.854	1.165	3.916	2.988	0.116	1215.	0.904	669.	0.498	578.	0.430	574.	0.427
0.112	1.068	0.815	1.162	3.915	2.988	0.113	1204.	0.896	670.	0.499	578.	0.430	574.	0.427
0.110	1.021	0.779	1.160	3.921	2.994	0.111	1192.	0.887	671.	0.499	579.	0.430	574.	0.427
0.106	0.975	0.744	1.156	3.929	3.000	0.107	1181.	0.879	672.	0.500	579.	0.431	575.	0.428
0.102	0.933	0.712	1.152	3.934	3.004	0.103	1167.	0.869	673.	0.501	579.	0.431	575.	0.428
0.100	0.887	0.677	1.150	3.938	3.008	0.101	1155.	0.859	674.	0.501	580.	0.431	576.	0.428
0.097	0.850	0.648	1.147	3.945	3.008	0.098	1142.	0.860	675.	0.508	580.	0.437	576.	0.434
0.095	0.811	0.614	1.145	3.949	3.011	0.096	1129.	0.840	676.	0.503	580.	0.432	576.	0.429
0.092	0.774	0.590	1.142	3.950	3.011	0.093	1115.	0.829	677.	0.503	581.	0.432	577.	0.429
0.090	0.741	0.565	1.140	3.958	3.016	0.091	1103.	0.821	677.	0.504	581.	0.432	577.	0.429
0.087	0.708	0.540	1.137	3.961	3.019	0.088	1089.	0.811	678.	0.505	581.	0.433	577.	0.430
0.084	0.676	0.515	1.134	3.964	3.019	0.085	1075.	0.800	679.	0.505	582.	0.433	578.	0.430
0.080	0.647	0.493	1.130	3.971	3.022	0.081	1059.	0.788	680.	0.506	582.	0.433	578.	0.430
0.077	0.617	0.470	1.127	3.973	3.026	0.078	1042.	0.775	681.	0.507	583.	0.433	579.	0.431
0.073	0.589	0.448	1.123	3.974	3.027	0.074	1022.	0.760	682.	0.507	583.	0.434	579.	0.431
0.069	0.564	0.429	1.119	3.982	3.031	0.070	1003.	0.747	683.	0.508	583.	0.434	580.	0.431
0.065	0.539	0.410	1.115	3.983	3.031	0.066	981.	0.730	683.	0.508	584.	0.434	580.	0.432
0.061	0.514	0.391	1.111	3.986	3.032	0.062	963.	0.717	684.	0.509	584.	0.435	580.	0.432
0.058	0.495	0.377	1.108	3.989	3.036	0.059	947.	0.705	685.	0.510	584.	0.435	581.	0.432
0.055	0.475	0.362	1.105	3.992	3.038	0.056	932.	0.694	686.	0.510	585.	0.435	581.	0.432
0.051	0.455	0.346	1.101	3.995	3.038	0.052	919.	0.683	687.	0.511	585.	0.435	582.	0.433
0.049	0.438	0.333	1.099	3.996	3.039	0.050	907.	0.675	688.	0.512	585.	0.435	582.	0.433
0.046	0.421	0.320	1.096	3.999	3.041	0.047	895.	0.666	688.	0.512	586.	0.436	582.	0.433
0.043	0.403	0.306	1.093	3.997	3.040	0.044	883.	0.657	689.	0.513	586.	0.436	583.	0.434
0.041	0.389	0.296	1.091	4.000	3.042	0.042	871.	0.648	690.	0.513	586.	0.436	583.	0.434
0.038	0.377	0.287	1.088	4.001	3.043	0.039	857.	0.638	691.	0.514	587.	0.437	584.	0.434
0.034	0.363	0.276	1.084	4.003	3.047	0.035	844.	0.628	692.	0.515	587.	0.437	584.	0.435

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OF POOR QUALITY

DATE = 9-20-73  
PROJECT NUMBER VA353-218A  
ARO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/R1 OF-9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
51.	139	7.92	148.1	1344.	15.42	14.58	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	HMC-INF (LBM/FT3)	HU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
99.2	0.0162	1.315	0.711	3869.	0.440E-03	0.257E-05	0.663E 06	15.81	0.0	0.70	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.031	0.352	0.268	1.081	4.006	3.047	0.032	832.	0.619	692.	0.515	588.	0.437	584.	0.435
0.027	0.342	0.260	1.077	4.008	3.050	0.028	822.	0.611	693.	0.516	588.	0.437	585.	0.435
0.024	0.330	0.251	1.074	4.006	3.049	0.025	807.	0.601	694.	0.516	588.	0.438	585.	0.435
0.020	0.322	0.245	1.070	4.011	3.051	0.021	795.	0.592	695.	0.517	589.	0.438	585.	0.436
0.017	0.312	0.237	1.067	4.015	3.054	0.018	783.	0.582	696.	0.518	589.	0.438	586.	0.436
0.015	0.302	0.230	1.065	4.013	3.054	0.016	771.	0.574	696.	0.518	589.	0.439	586.	0.436
0.011	0.294	0.223	1.061	4.016	3.057	0.012	761.	0.566	697.	0.519	590.	0.439	586.	0.436
0.008	0.287	0.218	1.058	4.018	3.058	0.009	745.	0.554	698.	0.519	590.	0.439	587.	0.437
0.007	0.280	0.213	1.057	4.017	3.057	0.008	703.	0.523	699.	0.520	591.	0.439	587.	0.437
0.007	0.267	0.203	1.057	4.016	3.057	0.008	705.	0.525	700.	0.521	591.	0.440	588.	0.437

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 ARD, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO.	PC (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
52.	139	7.92	152.3	1344.	15.42	14.58	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	H00-INF	PC-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
99.2	0.0167	1.353	0.731	3869.	0.453E-03	0.25/E-05	0.682E 06	13.55	0.0	0.60	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
			2.402	1.321	0.976	1.353	1257.	0.935	527.	0.392	538.	0.401	551.	0.410
			2.383	1.323	0.978	1.334	1258.	0.936	529.	0.394	539.	0.401	552.	0.410
			2.351	1.320	0.976	1.302	1257.	0.936	531.	0.395	540.	0.402	552.	0.410
			2.317	1.322	0.977	1.268	1259.	0.936	533.	0.396	540.	0.402	552.	0.411
			2.303	1.324	0.978	1.254	1257.	0.935	535.	0.398	541.	0.402	552.	0.411
1.247	3.784	2.795	2.247	1.324	0.978	1.248	1256.	0.935	553.	0.412	546.	0.406	554.	0.412
1.215	3.805	2.811	2.265	1.323	0.977	1.216	1257.	0.935	555.	0.413	547.	0.407	554.	0.412
1.182	3.831	2.830	2.232	1.323	0.977	1.183	1257.	0.936	557.	0.415	547.	0.407	554.	0.412
1.150	3.847	2.842	2.200	1.324	0.978	1.151	1257.	0.936	559.	0.416	548.	0.408	554.	0.412
1.117	3.852	2.847	2.167	1.323	0.978	1.118	1257.	0.936	561.	0.417	548.	0.408	555.	0.413
1.082	3.857	2.853	2.132	1.323	0.978	1.083	1256.	0.936	563.	0.419	549.	0.408	555.	0.413
1.049	3.853	2.850	2.099	1.322	0.977	1.050	1257.	0.935	565.	0.420	549.	0.409	555.	0.413
1.016	3.842	2.844	2.066	1.321	0.977	1.017	1257.	0.935	566.	0.421	550.	0.409	555.	0.413
0.983	3.831	2.836	2.033	1.322	0.978	0.984	1258.	0.936	568.	0.423	550.	0.409	555.	0.413
0.950	3.821	2.830	2.000	1.320	0.977	0.951	1257.	0.935	570.	0.424	551.	0.410	555.	0.413
0.916	3.813	2.826	1.966	1.320	0.978	0.917	1257.	0.935	572.	0.425	551.	0.410	556.	0.413
0.882	3.803	2.819	1.932	1.318	0.976	0.883	1257.	0.935	573.	0.427	552.	0.411	556.	0.414
0.848	3.791	2.813	1.898	1.318	0.978	0.849	1258.	0.936	575.	0.428	552.	0.411	556.	0.414
0.814	3.780	2.805	1.864	1.317	0.977	0.815	1257.	0.936	577.	0.429	553.	0.411	556.	0.414
0.780	3.768	2.798	1.830	1.318	0.978	0.781	1258.	0.936	579.	0.430	553.	0.412	556.	0.414
0.745	3.756	2.793	1.795	1.315	0.978	0.746	1258.	0.936	580.	0.432	554.	0.412	556.	0.414
0.709	3.736	2.778	1.759	1.318	0.980	0.710	1258.	0.936	582.	0.433	554.	0.412	557.	0.414
0.675	3.711	2.763	1.725	1.315	0.979	0.676	1257.	0.935	584.	0.434	555.	0.413	557.	0.414
0.641	3.683	2.742	1.691	1.315	0.979	0.642	1258.	0.936	585.	0.435	555.	0.413	557.	0.414
0.610	3.652	2.723	1.660	1.315	0.980	0.611	1258.	0.936	587.	0.437	555.	0.413	557.	0.414
0.575	3.615	2.697	1.625	1.313	0.979	0.576	1258.	0.936	588.	0.438	556.	0.414	557.	0.415
0.540	3.575	2.669	1.590	1.313	0.980	0.541	1258.	0.936	590.	0.439	556.	0.414	557.	0.415
0.503	3.529	2.636	1.553	1.313	0.980	0.504	1259.	0.937	592.	0.440	557.	0.414	557.	0.415
0.472	3.474	2.597	1.522	1.312	0.980	0.473	1259.	0.936	593.	0.441	557.	0.415	557.	0.415
0.438	3.410	2.552	1.488	1.309	0.979	0.439	1259.	0.937	595.	0.442	558.	0.415	558.	0.415
0.404	3.343	2.502	1.454	1.308	0.979	0.405	1259.	0.937	596.	0.444	558.	0.415	558.	0.415
			1.419	1.308	0.980	0.370	1260.	0.938	598.	0.445	558.	0.415	559.	0.416
			1.403	1.307	0.980	0.354	1261.	0.938	599.	0.446	559.	0.416	559.	0.416
			1.394	1.305	0.979	0.345	1260.	0.938	601.	0.447	559.	0.416	560.	0.417
			1.380	1.304	0.978	0.341	1261.	0.939	602.	0.448	559.	0.417	560.	0.417
			1.367	1.303	0.979	0.338	1261.	0.939	603.	0.449	560.	0.417	561.	0.418
0.334	2.973	2.236	1.384	1.301	0.978	0.335	1261.	0.939	605.	0.450	560.	0.417	561.	0.418
0.331	2.948	2.218	1.361	1.301	0.979	0.332	1261.	0.939	606.	0.451	561.	0.418	562.	0.418
0.328	2.926	2.203	1.378	1.301	0.980	0.329	1261.	0.939	608.	0.452	561.	0.418	562.	0.418
0.326	2.906	2.191	1.376	1.299	0.979	0.327	1261.	0.939	609.	0.454	562.	0.418	562.	0.419
0.323	2.888	2.179	1.373	1.299	0.980	0.324	1261.	0.939	610.	0.455	562.	0.418	563.	0.419
0.320	2.870	2.167	1.370	1.301	0.982	0.321	1262.	0.939	612.	0.456	562.	0.419	563.	0.419



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 ARNOLD-AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PC (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
52.	139	7.92	149.1	1343.	15.42	14.58	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RHO-INF	ML-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
99.1	0.0163	1.324	0.716	3867.	0.443E-03	0.257E-05	0.668E 06	13.55	0.0	0.60	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.317	2.853	2.155	1.367	1.304	0.985	0.318	1261.	0.439	613.	0.457	563.	0.419	563.	0.419
0.314	2.835	2.143	1.364	1.305	0.986	0.315	1262.	0.439	614.	0.458	563.	0.419	564.	0.420
0.311	2.816	2.132	1.361	1.308	0.989	0.312	1262.	0.439	616.	0.459	564.	0.420	564.	0.420
0.308	2.799	2.119	1.358	1.313	0.994	0.309	1262.	0.439	617.	0.460	564.	0.420	564.	0.420
0.304	2.780	2.104	1.354	1.321	1.000	0.305	1262.	0.439	618.	0.460	565.	0.420	565.	0.421
0.301	2.759	2.092	1.351	1.340	1.016	0.302	1262.	0.440	620.	0.461	565.	0.421	565.	0.421
0.298	2.741	2.079	1.348	1.368	1.037	0.299	1262.	0.440	621.	0.462	565.	0.421	566.	0.421
0.295	2.722	2.067	1.345	1.405	1.067	0.296	1262.	0.440	622.	0.463	565.	0.421	566.	0.421
0.293	2.700	2.053	1.343	1.435	1.096	0.294	1262.	0.440	624.	0.464	566.	0.421	566.	0.422
0.290	2.683	2.041	1.340	1.504	1.144	0.291	1262.	0.440	625.	0.465	566.	0.422	567.	0.422
0.287	2.664	2.028	1.337	1.564	1.194	0.288	1262.	0.440	626.	0.466	567.	0.422	567.	0.422
0.284	2.643	2.014	1.334	1.667	1.270	0.285	1263.	0.440	627.	0.467	567.	0.422	567.	0.422
0.282	2.629	2.003	1.332	1.766	1.345	0.283	1263.	0.440	629.	0.468	567.	0.422	568.	0.423
0.279	2.612	1.988	1.329	1.858	1.414	0.280	1263.	0.440	630.	0.469	568.	0.423	568.	0.423
0.277	2.594	1.973	1.327	1.964	1.494	0.278	1263.	0.441	631.	0.470	568.	0.423	568.	0.423
0.273	2.579	1.961	1.323	2.095	1.592	0.274	1263.	0.441	632.	0.471	569.	0.423	568.	0.423
0.271	2.564	1.948	1.321	2.217	1.684	0.272	1264.	0.441	633.	0.472	569.	0.424	569.	0.423
0.267	2.549	1.935	1.317	2.364	1.810	0.268	1264.	0.441	634.	0.472	569.	0.424	569.	0.424
0.263	2.531	1.921	1.313	2.598	1.972	0.264	1264.	0.441	636.	0.473	570.	0.424	569.	0.424
0.260	2.515	1.907	1.310	2.862	2.169	0.261	1264.	0.441	637.	0.474	570.	0.424	570.	0.424
0.257	2.498	1.894	1.307	3.045	2.308	0.258	1264.	0.441	638.	0.475	570.	0.425	570.	0.424
0.253	2.478	1.877	1.303	3.302	2.506	0.254	1264.	0.441	639.	0.476	571.	0.425	571.	0.425
0.249	2.457	1.861	1.299	3.460	2.621	0.250	1264.	0.441	640.	0.477	571.	0.425	571.	0.425
0.246	2.438	1.848	1.296	3.577	2.711	0.247	1265.	0.442	641.	0.478	571.	0.425	571.	0.425
0.243	2.419	1.834	1.293	3.673	2.784	0.244	1265.	0.442	642.	0.478	572.	0.426	572.	0.426
0.240	2.399	1.817	1.290	3.712	2.812	0.241	1265.	0.442	644.	0.479	572.	0.426	572.	0.426
0.237	2.382	1.805	1.287	3.742	2.835	0.238	1265.	0.442	645.	0.480	572.	0.426	572.	0.426
0.234	2.364	1.791	1.284	3.756	2.845	0.235	1266.	0.442	646.	0.481	573.	0.427	573.	0.426
0.229	2.341	1.774	1.279	3.763	2.851	0.230	1266.	0.443	647.	0.482	573.	0.427	573.	0.427
0.226	2.318	1.756	1.276	3.770	2.856	0.227	1266.	0.443	648.	0.482	574.	0.427	573.	0.427
0.221	2.294	1.739	1.271	3.775	2.862	0.222	1267.	0.443	649.	0.483	574.	0.427	573.	0.427
0.216	2.269	1.719	1.266	3.784	2.866	0.217	1267.	0.443	650.	0.484	574.	0.428	574.	0.427
0.211	2.237	1.695	1.261	3.786	2.869	0.212	1267.	0.444	651.	0.485	575.	0.428	574.	0.427
0.207	2.203	1.670	1.257	3.796	2.878	0.208	1268.	0.444	652.	0.486	575.	0.428	574.	0.428
0.203	2.170	1.644	1.253	3.801	2.879	0.204	1269.	0.445	653.	0.486	576.	0.429	575.	0.428
0.199	2.135	1.618	1.249	3.802	2.882	0.200	1269.	0.445	654.	0.487	576.	0.429	575.	0.428
0.196	2.102	1.593	1.246	3.805	2.884	0.197	1270.	0.445	655.	0.488	576.	0.429	575.	0.428
0.193	2.067	1.568	1.243	3.807	2.887	0.194	1270.	0.446	656.	0.489	577.	0.429	576.	0.429
0.190	2.037	1.545	1.240	3.808	2.889	0.191	1270.	0.446	657.	0.489	577.	0.430	576.	0.429
0.188	2.005	1.522	1.238	3.808	2.891	0.189	1271.	0.446	658.	0.490	578.	0.430	576.	0.429
0.185	1.975	1.500	1.235	3.808	2.892	0.186	1271.	0.446	659.	0.491	578.	0.430	577.	0.429
0.181	1.944	1.477	1.231	3.811	2.895	0.182	1271.	0.447	660.	0.492	578.	0.431	577.	0.430

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 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO.	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
52.	139	7.92	148.3	1342.	15.42	14.56	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	HQ-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
99.1	0.0162	1.317	0.712	3866.	0.441E-03	0.257E-05	0.665E 06	13.55	0.0	0.60	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.177	-1.902	-1.445	1.227	3.813	2.896	0.176	1272.	0.948	661.	0.493	579.	0.431	578.	0.430
0.172	-1.862	-1.415	1.222	3.812	2.897	0.173	1272.	0.948	662.	0.494	579.	0.431	578.	0.431
0.169	-1.822	-1.385	1.219	3.813	2.898	0.170	1273.	0.948	663.	0.494	579.	0.432	579.	0.431
0.166	-1.778	-1.352	1.216	3.813	2.900	0.167	1273.	0.948	664.	0.495	580.	0.432	579.	0.431
0.162	-1.737	-1.321	1.212	3.815	2.902	0.163	1273.	0.949	665.	0.496	580.	0.432	579.	0.432
0.161	-1.697	-1.290	1.211	3.816	2.902	0.162	1273.	0.948	666.	0.496	580.	0.432	580.	0.432
0.157	-1.654	-1.258	1.207	3.820	2.905	0.158	1272.	0.948	667.	0.497	581.	0.433	580.	0.433
0.152	-1.606	-1.223	1.202	3.818	2.904	0.153	1272.	0.948	668.	0.498	581.	0.433	581.	0.433
0.148	-1.559	-1.185	1.195	3.821	2.906	0.149	1270.	0.947	669.	0.499	581.	0.433	582.	0.433
0.144	-1.507	-1.146	1.194	3.826	2.910	0.145	1268.	0.945	670.	0.499	582.	0.433	582.	0.434
0.140	-1.451	-1.104	1.190	3.824	2.909	0.141	1265.	0.943	671.	0.500	582.	0.434	583.	0.434
0.136	-1.394	-1.061	1.186	3.825	2.909	0.137	1261.	0.940	672.	0.501	583.	0.434	583.	0.435
0.132	-1.341	-1.020	1.182	3.828	2.911	0.133	1256.	0.936	673.	0.501	583.	0.434	584.	0.435
0.129	-1.282	-0.975	1.179	3.828	2.912	0.130	1250.	0.931	674.	0.502	583.	0.435	585.	0.436
0.124	-1.226	-0.933	1.174	3.830	2.913	0.125	1241.	0.925	675.	0.503	583.	0.435	585.	0.436
0.121	-1.167	-0.887	1.171	3.829	2.910	0.122	1232.	0.918	675.	0.503	584.	0.435	586.	0.437
0.117	-1.113	-0.847	1.167	3.831	2.914	0.118	1221.	0.910	676.	0.504	584.	0.435	587.	0.437
0.113	-1.057	-0.804	1.163	3.827	2.912	0.114	1208.	0.900	677.	0.505	585.	0.436	588.	0.438
0.109	-1.004	-0.764	1.159	3.829	2.914	0.110	1194.	0.890	678.	0.505	585.	0.436	589.	0.439
0.104	-0.954	-0.725	1.154	3.830	2.913	0.105	1178.	0.878	679.	0.506	585.	0.436	589.	0.439
0.100	-0.903	-0.687	1.150	3.828	2.914	0.101	1160.	0.865	680.	0.507	586.	0.436	590.	0.440
0.096	-0.854	-0.650	1.146	3.823	2.910	0.097	1144.	0.852	681.	0.507	586.	0.437	591.	0.440
0.093	-0.811	-0.618	1.143	3.824	2.912	0.094	1130.	0.842	682.	0.508	586.	0.437	592.	0.441
0.088	-0.770	-0.586	1.136	3.822	2.911	0.089	1114.	0.830	683.	0.509	587.	0.437	593.	0.442
0.084	-0.730	-0.556	1.134	3.817	2.909	0.085	1097.	0.818	683.	0.509	587.	0.438	593.	0.442
0.080	-0.693	-0.528	1.130	3.814	2.907	0.081	1081.	0.806	684.	0.510	588.	0.438	594.	0.443
0.077	-0.661	-0.504	1.127	3.816	2.908	0.078	1066.	0.794	685.	0.511	588.	0.438	595.	0.443
0.071	-0.629	-0.480	1.121	3.811	2.906	0.072	1045.	0.779	686.	0.511	588.	0.438	596.	0.444
0.068	-0.594	-0.453	1.118	3.805	2.902	0.069	1026.	0.764	687.	0.512	589.	0.439	597.	0.445
0.064	-0.569	-0.434	1.114	3.804	2.901	0.065	1007.	0.750	688.	0.512	589.	0.439	597.	0.445
0.060	-0.543	-0.414	1.110	3.804	2.903	0.061	989.	0.737	689.	0.513	589.	0.439	598.	0.446
0.057	-0.516	-0.394	1.107	3.798	2.900	0.058	970.	0.723	689.	0.514	590.	0.439	599.	0.446
0.051	-0.494	-0.377	1.101	3.796	2.899	0.052	947.	0.706	690.	0.514	590.	0.440	599.	0.447
0.048	-0.472	-0.360	1.098	3.792	2.896	0.049	927.	0.691	691.	0.515	590.	0.440	600.	0.447
0.044	-0.450	-0.343	1.094	3.794	2.897	0.045	909.	0.678	692.	0.516	591.	0.440	601.	0.448
0.041	-0.433	-0.330	1.091	3.796	2.897	0.042	892.	0.665	693.	0.516	591.	0.440	601.	0.448
0.037	-0.413	-0.315	1.087	3.795	2.896	0.038	873.	0.651	693.	0.517	592.	0.441	602.	0.449
0.033	-0.398	-0.303	1.083	3.796	2.895	0.034	854.	0.636	694.	0.517	592.	0.441	603.	0.449
0.029	-0.384	-0.293	1.079	3.797	2.896	0.030	837.	0.624	695.	0.518	592.	0.441	603.	0.450
0.024	-0.368	-0.280	1.074	3.794	2.894	0.025	817.	0.609	696.	0.519	593.	0.442	604.	0.450
0.019	-0.356	-0.271	1.069	3.794	2.892	0.020	797.	0.594	697.	0.519	593.	0.442	605.	0.451
0.015	-0.344	-0.262	1.065	3.791	2.889	0.016	777.	0.579	697.	0.520	593.	0.442	605.	0.451

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ARO, IAC.  
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NASA/RI OH9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
52.	139	7.92	147.8	1342.	15.42	14.58	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	HPO-INF (LBM/FT3)	MC-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
99.1	0.0162	1.312	0.709	3866.	0.440E-03	0.257E-05	0.663E 06	13.95	0.0	0.60	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT4 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.010	-0.332	-0.253	1.060	3.790	2.888	0.011	738.	0.550	698.	0.520	594.	0.442	606.	0.452
0.007	0.321	0.244	1.057	3.787	2.886	0.008	709.	0.528	699.	0.521	594.	0.442	607.	0.452
0.007	0.301	-0.229	1.057	3.791	2.887	0.008	701.	0.523	701.	0.522	595.	0.443	608.	0.453

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GROUP	MODEL	MACH NO	PC (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
53.	139	7.92	151.9	1340.	15.42	14.58	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	HMO-INF	MO-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.9	0.0166	1.349	0.729	3863.	0.453E-03	0.256E-05	0.683E 06	11.29	0.0	0.50	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
			2.395	1.322	0.979	1.346	1253.	0.935	518.	0.386	533.	0.398	551.	0.411
			2.375	1.323	0.980	1.326	1254.	0.936	519.	0.388	534.	0.398	551.	0.411
			2.341	1.323	0.981	1.292	1254.	0.935	521.	0.389	534.	0.399	551.	0.411
			2.307	1.323	0.981	1.258	1253.	0.935	523.	0.390	535.	0.399	551.	0.411
			2.273	1.322	0.979	1.224	1253.	0.935	525.	0.392	536.	0.400	551.	0.411
			2.239	1.324	0.980	1.190	1254.	0.936	527.	0.393	536.	0.400	552.	0.412
1.182	3.740	2.772	2.232	1.322	0.980	1.183	1253.	0.935	544.	0.406	541.	0.404	554.	0.414
1.148	3.744	2.774	2.198	1.322	0.980	1.149	1252.	0.934	546.	0.408	542.	0.404	555.	0.414
1.113	3.725	2.761	2.163	1.319	0.977	1.114	1253.	0.935	548.	0.409	543.	0.405	555.	0.414
1.077	3.647	2.742	2.127	1.320	0.979	1.078	1253.	0.935	550.	0.410	543.	0.405	555.	0.414
1.044	3.666	2.717	2.094	1.319	0.977	1.045	1253.	0.935	552.	0.412	543.	0.406	556.	0.415
1.010	3.638	2.698	2.060	1.317	0.976	1.011	1253.	0.935	553.	0.413	544.	0.406	556.	0.415
0.977	3.625	2.640	2.027	1.318	0.978	0.978	1253.	0.935	555.	0.414	544.	0.406	557.	0.415
0.943	3.622	2.688	1.993	1.316	0.976	0.944	1253.	0.935	557.	0.416	545.	0.407	557.	0.416
0.909	3.631	2.696	1.959	1.316	0.977	0.910	1253.	0.935	559.	0.417	545.	0.407	557.	0.416
0.873	3.635	2.703	1.923	1.315	0.977	0.874	1253.	0.935	561.	0.418	546.	0.407	558.	0.416
0.838	3.629	2.698	1.888	1.315	0.978	0.839	1253.	0.935	562.	0.420	546.	0.408	559.	0.417
0.803	3.615	2.689	1.853	1.313	0.977	0.804	1253.	0.935	564.	0.421	547.	0.408	560.	0.418
0.769	3.594	2.676	1.819	1.311	0.976	0.770	1254.	0.935	566.	0.422	547.	0.408	561.	0.419
0.734	3.570	2.661	1.784	1.310	0.977	0.735	1253.	0.935	567.	0.423	548.	0.409	561.	0.419
0.700	3.538	2.639	1.750	1.306	0.974	0.701	1254.	0.935	569.	0.425	548.	0.409	562.	0.419
0.665	3.503	2.615	1.715	1.307	0.975	0.666	1254.	0.936	571.	0.426	549.	0.409	563.	0.420
0.630	3.466	2.585	1.680	1.307	0.975	0.631	1254.	0.935	572.	0.427	549.	0.410	563.	0.420
0.595	3.424	2.557	1.645	1.304	0.974	0.596	1254.	0.936	574.	0.428	550.	0.410	564.	0.421
0.560	3.378	2.523	1.610	1.304	0.974	0.561	1254.	0.936	576.	0.430	550.	0.410	564.	0.421
0.525	3.333	2.490	1.575	1.304	0.974	0.526	1254.	0.936	577.	0.431	550.	0.411	564.	0.421
0.487	3.279	2.449	1.537	1.303	0.973	0.488	1254.	0.936	579.	0.432	551.	0.411	565.	0.421
0.455	3.224	2.407	1.505	1.304	0.973	0.456	1255.	0.936	580.	0.433	551.	0.411	565.	0.422
0.421	3.164	2.362	1.471	1.304	0.973	0.422	1255.	0.937	582.	0.434	552.	0.412	566.	0.422
0.386	3.091	2.306	1.436	1.306	0.974	0.387	1256.	0.938	584.	0.436	552.	0.412	566.	0.423
			1.400	1.307	0.975	0.351	1257.	0.938	585.	0.437	553.	0.413	567.	0.423
			1.384	1.305	0.973	0.335	1257.	0.939	587.	0.438	553.	0.413	568.	0.424
			1.375	1.312	12.235	0.326	1257.	0.939	588.	0.439	554.	0.414	569.	0.425
			1.371	1.307	0.973	0.322	1258.	0.939	590.	0.440	555.	0.414	569.	0.425
0.317	2.745	2.045	1.367	1.307	0.973	0.318	1257.	0.939	591.	0.441	555.	0.415	570.	0.426
0.313	2.711	2.020	1.363	1.305	0.972	0.314	1257.	0.939	593.	0.443	556.	0.415	570.	0.426
0.310	2.685	2.001	1.360	1.305	0.972	0.311	1257.	0.939	594.	0.444	556.	0.416	571.	0.426
0.306	2.665	1.986	1.356	1.306	0.973	0.307	1258.	0.939	595.	0.445	557.	0.416	572.	0.427
0.302	2.644	1.970	1.352	1.306	0.973	0.303	1258.	0.939	597.	0.446	557.	0.416	573.	0.428
0.300	2.622	1.955	1.350	1.305	0.973	0.301	1258.	0.940	598.	0.447	558.	0.417	573.	0.428
0.297	2.603	1.941	1.347	1.304	0.972	0.298	1258.	0.940	600.	0.448	558.	0.417	574.	0.429
0.294	2.585	1.927	1.344	1.304	0.972	0.295	1258.	0.940	601.	0.449	559.	0.418	575.	0.429

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GROUP 53.	MODEL 139	MACH NO. 7.92	PC(PSIA) 151.0	TC(DEG R) 1339.	ALPHA-MODEL 15.42	ALPHA-SECTOR 14.58	ALPHA-PREBEND 30.00	ROLL-MODEL 180.00	YAW 0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	PL-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.9	0.0165	1.341	0.725	3861.	0.451E-03	0.256E-05	0.680E 06	11.29	0.0	0.50	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/TC	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.291	2.571	1.917	1.341	1.306	0.974	0.292	1259.	0.940	603.	0.450	560.	0.418	576.	0.430
0.288	2.555	1.905	1.338	1.305	0.973	0.289	1259.	0.940	604.	0.451	560.	0.418	576.	0.430
0.285	2.536	1.892	1.335	1.303	0.972	0.286	1258.	0.940	605.	0.452	561.	0.419	577.	0.431
0.282	2.524	1.883	1.332	1.304	0.973	0.283	1259.	0.940	607.	0.453	561.	0.419	578.	0.432
0.280	2.507	1.871	1.330	1.303	0.973	0.281	1258.	0.940	608.	0.454	562.	0.420	579.	0.432
0.277	2.491	1.861	1.327	1.302	0.972	0.278	1259.	0.940	609.	0.455	563.	0.420	579.	0.433
0.274	2.477	1.850	1.324	1.304	0.974	0.275	1259.	0.940	611.	0.456	563.	0.421	580.	0.433
0.272	2.460	1.837	1.322	1.301	0.972	0.273	1259.	0.940	612.	0.457	564.	0.421	581.	0.434
0.269	2.446	1.828	1.319	1.302	0.973	0.270	1259.	0.940	613.	0.458	565.	0.422	582.	0.434
0.265	2.430	1.819	1.315	1.300	0.973	0.266	1259.	0.940	614.	0.459	566.	0.423	582.	0.435
0.261	2.411	1.804	1.311	1.300	0.973	0.262	1259.	0.941	616.	0.460	567.	0.423	583.	0.435
0.258	2.395	1.794	1.308	1.301	0.974	0.259	1259.	0.941	617.	0.461	568.	0.424	584.	0.436
0.255	2.377	1.780	1.305	1.300	0.974	0.256	1259.	0.941	618.	0.462	569.	0.425	584.	0.437
0.251	2.359	1.768	1.301	1.302	0.976	0.252	1260.	0.941	620.	0.463	570.	0.426	585.	0.437
0.246	2.339	1.755	1.296	1.303	0.978	0.247	1260.	0.942	621.	0.464	571.	0.427	585.	0.437
0.241	2.315	1.736	1.291	1.305	0.978	0.242	1260.	0.942	622.	0.465	573.	0.428	586.	0.438
0.238	2.296	1.723	1.288	1.309	0.982	0.239	1260.	0.942	623.	0.466	574.	0.429	586.	0.438
0.235	2.274	1.709	1.285	1.318	0.990	0.236	1260.	0.942	624.	0.467	576.	0.430	587.	0.439
0.230	2.255	1.694	1.280	1.343	1.008	0.231	1261.	0.942	626.	0.468	577.	0.431	587.	0.439
0.225	2.235	1.680	1.275	1.386	1.041	0.226	1261.	0.943	627.	0.468	578.	0.432	588.	0.439
0.221	2.212	1.662	1.271	1.441	1.083	0.222	1261.	0.943	628.	0.469	580.	0.434	588.	0.440
0.217	2.188	1.643	1.267	1.555	1.168	0.218	1262.	0.943	629.	0.470	582.	0.435	589.	0.440
0.213	2.163	1.624	1.263	1.658	1.245	0.214	1262.	0.943	630.	0.471	584.	0.436	589.	0.440
0.206	2.140	1.606	1.258	1.810	1.359	0.209	1263.	0.944	631.	0.472	585.	0.437	590.	0.441
0.205	2.117	1.589	1.255	1.960	1.472	0.206	1263.	0.944	633.	0.473	587.	0.439	590.	0.441
0.202	2.099	1.568	1.252	2.094	1.572	0.203	1263.	0.944	634.	0.474	588.	0.440	591.	0.442
0.199	2.066	1.552	1.249	2.223	1.670	0.200	1264.	0.944	635.	0.475	590.	0.441	591.	0.442
0.195	2.039	1.530	1.245	2.401	1.802	0.196	1264.	0.945	636.	0.475	592.	0.442	592.	0.442
0.191	2.012	1.510	1.241	2.602	1.953	0.192	1265.	0.945	637.	0.476	593.	0.443	592.	0.443
0.187	1.985	1.490	1.237	2.921	2.192	0.188	1265.	0.945	638.	0.477	595.	0.444	593.	0.443
0.183	1.953	1.466	1.233	3.162	2.373	0.184	1265.	0.945	639.	0.478	597.	0.446	593.	0.443
0.179	1.920	1.442	1.229	3.376	2.536	0.180	1265.	0.946	641.	0.479	598.	0.447	594.	0.444
0.175	1.888	1.418	1.225	3.567	2.679	0.176	1266.	0.946	642.	0.480	600.	0.448	594.	0.444
0.170	1.851	1.390	1.220	3.693	2.774	0.171	1266.	0.946	643.	0.480	602.	0.450	595.	0.444
0.166	1.814	1.361	1.216	3.736	2.804	0.167	1267.	0.947	644.	0.481	603.	0.451	595.	0.445
0.161	1.777	1.334	1.211	3.750	2.816	0.162	1267.	0.947	645.	0.482	604.	0.452	595.	0.445
0.157	1.735	1.303	1.207	3.741	2.809	0.158	1268.	0.948	646.	0.483	606.	0.453	596.	0.445
0.153	1.694	1.272	1.203	3.734	2.804	0.154	1268.	0.948	647.	0.484	607.	0.454	596.	0.446
0.150	1.653	1.242	1.200	3.724	2.799	0.151	1268.	0.948	648.	0.484	609.	0.455	597.	0.446
0.146	1.614	1.213	1.196	3.718	2.794	0.147	1268.	0.948	649.	0.485	610.	0.456	597.	0.446
0.142	1.573	1.182	1.192	3.710	2.788	0.143	1268.	0.948	650.	0.486	611.	0.456	597.	0.446
0.137	1.528	1.149	1.187	3.704	2.787	0.138	1268.	0.948	651.	0.487	612.	0.457	598.	0.447

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GROUP	MODEL	MACH NO.	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
53.	139	7.92	149.6	1338.	15.42	14.58	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	HMO-INF	ML-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.8	0.0164	1.329	0.718	3860.	0.447E-03	0.256E-05	0.674E 06	11.29	0.0	0.50	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.133	1.484	1.116	1.183	3.700	2.784	0.134	1267.	0.947	652.	0.487	613.	0.458	598.	0.447
0.130	1.436	1.081	1.180	3.695	2.780	0.131	1266.	0.946	653.	0.488	614.	0.459	598.	0.447
0.127	1.391	1.047	1.177	3.695	2.780	0.128	1265.	0.945	654.	0.489	615.	0.459	599.	0.448
0.125	1.351	1.017	1.175	3.693	2.781	0.126	1263.	0.944	655.	0.490	615.	0.460	599.	0.448
0.121	1.307	0.984	1.171	3.690	2.779	0.122	1260.	0.942	656.	0.490	616.	0.461	600.	0.448
0.117	1.264	0.953	1.167	3.689	2.779	0.118	1257.	0.939	657.	0.491	617.	0.461	600.	0.449
0.113	1.220	0.920	1.163	3.681	2.775	0.114	1252.	0.936	658.	0.492	618.	0.462	601.	0.449
0.110	1.175	0.887	1.160	3.682	2.778	0.111	1246.	0.931	659.	0.493	618.	0.462	601.	0.449
0.105	1.130	0.853	1.155	3.680	2.776	0.106	1238.	0.925	660.	0.493	619.	0.462	602.	0.450
0.100	1.081	0.816	1.150	3.676	2.775	0.101	1227.	0.917	661.	0.494	619.	0.463	602.	0.450
0.095	1.034	0.780	1.145	3.675	2.775	0.096	1211.	0.905	662.	0.495	619.	0.463	603.	0.450
0.091	0.780	0.575	1.131	3.655	2.765	0.082	1150.	0.859	666.	0.499	624.	0.467	606.	0.453
0.079	0.731	0.554	1.129	3.653	2.766	0.080	1144.	0.855	669.	0.500	625.	0.467	606.	0.453
0.077	0.702	0.532	1.127	3.650	2.765	0.078	1131.	0.845	670.	0.501	626.	0.468	607.	0.453
0.073	0.676	0.512	1.123	3.645	2.761	0.074	1116.	0.834	671.	0.501	627.	0.469	607.	0.454
0.070	0.648	0.490	1.120	3.642	2.761	0.071	1100.	0.822	672.	0.502	628.	0.469	608.	0.454
0.066	0.621	0.471	1.116	3.638	2.759	0.067	1080.	0.807	673.	0.503	629.	0.470	608.	0.455
0.062	0.593	0.450	1.112	3.634	2.756	0.063	1059.	0.791	674.	0.503	630.	0.471	609.	0.455
0.058	0.565	0.429	1.108	3.628	2.754	0.059	1034.	0.773	674.	0.504	632.	0.472	609.	0.455
0.055	0.539	0.409	1.105	3.622	2.751	0.056	1013.	0.757	675.	0.505	633.	0.473	610.	0.456
0.051	0.517	0.392	1.101	3.619	2.749	0.052	994.	0.743	676.	0.505	634.	0.474	610.	0.456
0.048	0.496	0.377	1.098	3.617	2.747	0.049	976.	0.729	677.	0.506	635.	0.475	611.	0.456
0.046	0.472	0.358	1.096	3.611	2.743	0.047	959.	0.717	678.	0.507	637.	0.476	611.	0.457
0.042	0.454	0.345	1.092	3.610	2.744	0.043	944.	0.706	679.	0.507	637.	0.476	612.	0.457
0.039	0.436	0.331	1.089	3.609	2.743	0.040	927.	0.692	680.	0.508	639.	0.477	612.	0.457
0.035	0.417	0.317	1.085	3.607	2.743	0.036	907.	0.678	681.	0.509	640.	0.478	613.	0.458
0.032	0.401	0.305	1.082	3.605	2.740	0.033	888.	0.663	681.	0.509	641.	0.479	613.	0.458
0.028	0.388	0.295	1.078	3.606	2.739	0.029	868.	0.649	682.	0.510	642.	0.480	614.	0.459
0.025	0.371	0.282	1.075	3.604	2.737	0.026	850.	0.636	683.	0.511	643.	0.481	614.	0.459
0.021	0.359	0.273	1.071	3.606	2.737	0.022	833.	0.622	684.	0.511	644.	0.482	614.	0.459
0.017	0.347	0.263	1.067	3.604	2.734	0.018	815.	0.609	685.	0.512	645.	0.482	615.	0.460
0.014	0.334	0.253	1.064	3.604	2.734	0.015	796.	0.595	686.	0.512	646.	0.483	615.	0.460
0.011	0.325	0.246	1.061	3.606	2.734	0.012	723.	0.541	686.	0.513	647.	0.484	616.	0.460
0.007	0.304	0.231	1.057	3.603	2.733	0.008	714.	0.534	688.	0.514	649.	0.485	617.	0.461

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GRCLP 54.	MODEL 139	MACH NO. 7.92	PO (PSIA) 152.3	TO (DEG R) 1335.	ALPHA-MODEL 15.43	ALPHA-SECTOR 14.57	ALPHA-PREBEND 30.00	ROLL-MODEL 180.00	YAW 0					
T-INF (DEG R) 98.6	P-INF (PSIA) 0.0167	PO1 (PSIA) 1.353	Q-INF (PSIA) 0.731	U-INF (FT/SEC) 3856.	WMO-INF (LBM/FT3) 0.456E-03	MC-INF (LBM/FT-SEC) 0.255E-05	RE/FT (FT-1) 0.689E 06	X (IN) 9.03	Y (IN) 0.0	X/L 0.40	L (IN) 22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
1.386	1.233	0.912	2.436	1.325	0.979	1.387	1247.	0.934	509.	0.381	525.	0.393	551.	0.412
1.349	1.225	0.905	2.399	1.322	0.976	1.350	1248.	0.935	510.	0.382	526.	0.394	551.	0.413
1.291	1.227	0.906	2.341	1.325	0.979	1.292	1248.	0.935	512.	0.384	526.	0.394	552.	0.413
1.251	1.225	0.905	2.301	1.325	0.979	1.252	1248.	0.935	514.	0.385	527.	0.395	553.	0.414
1.217	1.224	0.903	2.267	1.327	0.980	1.218	1248.	0.935	516.	0.386	528.	0.395	553.	0.414
1.183	1.223	0.902	2.233	1.325	0.977	1.184	1248.	0.935	518.	0.388	528.	0.396	554.	0.415
1.147	1.221	0.901	2.197	1.326	0.978	1.148	1248.	0.935	520.	0.390	529.	0.397	554.	0.416
1.112	1.282	0.946	2.162	1.327	0.979	1.113	1247.	0.935	522.	0.391	529.	0.397	555.	0.416
1.079	2.673	1.530	2.129	1.328	0.980	1.080	1249.	0.936	523.	0.392	530.	0.397	556.	0.417
1.076	3.938	2.905	2.126	1.327	0.979	1.077	1247.	0.935	542.	0.407	536.	0.401	562.	0.421
1.043	3.919	2.891	2.093	1.326	0.978	1.044	1247.	0.935	544.	0.408	536.	0.402	562.	0.421
1.009	3.884	2.867	2.059	1.325	0.978	1.010	1248.	0.935	546.	0.409	537.	0.402	563.	0.422
0.975	3.840	2.835	2.025	1.328	0.980	0.976	1247.	0.935	548.	0.411	537.	0.403	563.	0.422
0.939	3.782	2.793	1.989	1.324	0.978	0.940	1248.	0.935	550.	0.412	539.	0.404	564.	0.422
0.905	3.718	2.748	1.955	1.325	0.979	0.906	1248.	0.935	551.	0.413	539.	0.404	564.	0.423
0.870	3.652	2.700	1.920	1.328	0.981	0.871	1248.	0.935	553.	0.415	540.	0.405	565.	0.423
0.835	3.593	2.658	1.885	1.326	0.980	0.836	1248.	0.935	555.	0.416	542.	0.406	565.	0.424
0.800	3.537	2.616	1.850	1.327	0.981	0.801	1248.	0.935	557.	0.417	543.	0.407	566.	0.424
0.765	3.477	2.572	1.815	1.326	0.980	0.766	1248.	0.935	558.	0.419	544.	0.408	566.	0.424
0.730	3.415	2.529	1.780	1.323	0.980	0.731	1247.	0.935	560.	0.420	546.	0.409	567.	0.425
0.695	3.360	2.488	1.745	1.322	0.979	0.696	1248.	0.936	562.	0.421	547.	0.410	567.	0.425
0.660	3.309	2.454	1.710	1.321	0.980	0.661	1248.	0.935	564.	0.422	547.	0.410	568.	0.426
0.625	3.266	2.425	1.675	1.321	0.980	0.626	1248.	0.936	565.	0.424	548.	0.411	569.	0.426
0.590	3.236	2.401	1.640	1.322	0.981	0.591	1248.	0.936	567.	0.425	549.	0.411	569.	0.426
0.555	3.200	2.376	1.605	1.320	0.980	0.556	1248.	0.936	569.	0.426	549.	0.412	569.	0.427
0.519	3.161	2.350	1.569	1.320	0.981	0.520	1248.	0.936	570.	0.427	550.	0.412	570.	0.427
0.484	3.109	2.313	1.534	1.319	0.981	0.485	1249.	0.936	572.	0.429	550.	0.413	570.	0.427
0.450	3.043	2.264	1.500	1.317	0.980	0.451	1249.	0.936	573.	0.430	551.	0.413	571.	0.428
0.414	2.982	2.205	1.464	1.315	0.979	0.415	1250.	0.937	575.	0.431	552.	0.413	571.	0.428
0.379	2.969	2.139	1.429	1.316	0.981	0.380	1251.	0.938	576.	0.432	552.	0.414	571.	0.428
0.344	2.966	2.062	1.394	1.314	0.980	0.345	1251.	0.938	578.	0.433	553.	0.414	572.	0.429
0.310	2.955	1.980	1.360	1.317	0.981	0.311	1252.	0.939	580.	0.434	553.	0.415	573.	0.429
0.273	2.941	1.894	1.323	1.315	0.980	0.274	1254.	0.940	581.	0.436	553.	0.415	573.	0.429
0.240	2.925	1.808	1.290	1.317	0.982	0.241	1255.	0.941	583.	0.437	554.	0.415	573.	0.430
0.204	2.900	1.714	1.254	1.317	0.981	0.205	1257.	0.942	584.	0.438	555.	0.416	574.	0.430
0.170	2.149	1.602	1.220	1.314	0.980	0.171	1260.	0.944	586.	0.439	556.	0.417	574.	0.430
0.135	1.977	1.473	1.185	1.322	0.985	0.136	1263.	0.947	587.	0.440	557.	0.417	574.	0.431
0.114	1.796	1.339	1.164	1.373	1.024	0.115	1262.	0.946	588.	0.441	558.	0.418	575.	0.431
0.101	1.638	1.221	1.151	1.615	1.204	0.102	1257.	0.942	590.	0.442	560.	0.420	575.	0.431
0.086	1.442	1.111	1.136	2.216	1.651	0.087	1235.	0.926	591.	0.443	561.	0.421	576.	0.432
0.064	1.308	1.020	1.134	2.354	1.755	0.085	1228.	0.920	593.	0.444	563.	0.422	576.	0.432
0.081	1.265	0.943	1.131	2.518	1.877	0.082	1219.	0.914	594.	0.445	564.	0.423	577.	0.432

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GRQUP	MODEL	MACH NO	PO(PSIA)	TG(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
54.	139	7.92	150.9	1334.	15.44	14.56	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.5	0.0165	1.340	0.725	3854.	0.452E-03	0.255E-05	0.683E 06	9.03	0.0	0.40	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.079	1.182	0.882	1.129	2.689	2.006	0.080	1210.	0.907	596.	0.446	565.	0.424	577.	0.433
0.076	1.109	0.827	1.126	2.897	2.161	0.077	1201.	0.900	597.	0.448	566.	0.424	578.	0.433
0.073	1.044	0.779	1.123	3.171	2.366	0.074	1189.	0.892	598.	0.449	568.	0.425	578.	0.433
0.070	0.984	0.734	1.120	3.409	2.545	0.071	1176.	0.882	600.	0.450	568.	0.426	579.	0.434
0.066	0.931	0.695	1.116	3.629	2.709	0.067	1160.	0.871	601.	0.451	569.	0.427	579.	0.434
0.063	0.879	0.657	1.113	3.801	2.839	0.064	1143.	0.858	602.	0.452	570.	0.428	580.	0.435
0.059	0.830	0.620	1.109	3.898	2.911	0.060	1126.	0.844	604.	0.453	571.	0.429	580.	0.435
0.056	0.786	0.588	1.106	3.948	2.951	0.057	1107.	0.830	605.	0.454	572.	0.429	581.	0.436
0.053	0.743	0.556	1.103	3.957	2.958	0.054	1086.	0.814	606.	0.455	573.	0.430	581.	0.436
0.049	0.704	0.527	1.099	3.947	2.952	0.050	1065.	0.799	608.	0.456	574.	0.431	581.	0.436
0.046	0.669	0.501	1.096	3.937	2.947	0.047	1043.	0.783	609.	0.457	575.	0.432	582.	0.437
0.043	0.631	0.473	1.093	3.927	2.941	0.044	1023.	0.768	610.	0.458	576.	0.432	582.	0.437
0.040	0.602	0.451	1.090	3.917	2.935	0.041	1004.	0.753	612.	0.459	577.	0.433	583.	0.437
0.036	0.570	0.427	1.086	3.908	2.929	0.037	983.	0.737	613.	0.460	578.	0.434	583.	0.438
0.033	0.540	0.405	1.083	3.897	2.922	0.034	959.	0.720	614.	0.461	579.	0.434	584.	0.438
0.028	0.517	0.388	1.078	3.884	2.915	0.029	928.	0.696	615.	0.462	579.	0.435	584.	0.438
0.024	0.491	0.369	1.074	3.876	2.910	0.025	899.	0.675	616.	0.462	580.	0.435	585.	0.439
0.021	0.467	0.351	1.071	3.866	2.903	0.022	873.	0.655	618.	0.463	581.	0.436	585.	0.439
0.017	0.449	0.337	1.067	3.860	2.901	0.018	852.	0.639	619.	0.464	581.	0.436	585.	0.439
0.014	0.427	0.321	1.064	3.852	2.898	0.015	831.	0.624	620.	0.465	582.	0.436	586.	0.440
0.012	0.409	0.308	1.062	3.844	2.892	0.013	812.	0.609	621.	0.466	583.	0.437	586.	0.440
0.008	0.393	0.296	1.058	3.834	2.887	0.009	749.	0.562	622.	0.467	583.	0.437	587.	0.440
0.007	0.366	0.276	1.057	3.829	2.885	0.008	761.	0.572	624.	0.469	584.	0.438	587.	0.441



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GROUP	MODEL	MACH NO	PC(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
55.	139	7.92	152.3	1330.	15.42	14.58	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	RHO-INF	MC-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.2	0.0167	1.353	0.731	3848.	0.456E-03	0.254E-05	0.693E 06	6.77	0.0	0.30	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
1.368	1.207	0.892	2.418	1.325	0.979	1.369	1241.	0.933	499.	0.375	516.	0.388	546.	0.410
1.348	1.207	0.892	2.398	1.323	0.978	1.349	1242.	0.934	500.	0.376	517.	0.389	547.	0.411
1.315	1.208	0.894	2.365	1.325	0.980	1.316	1242.	0.934	502.	0.377	517.	0.389	548.	0.412
1.282	1.208	0.895	2.332	1.325	0.981	1.283	1242.	0.934	504.	0.379	518.	0.389	550.	0.413
1.247	1.206	0.894	2.297	1.322	0.979	1.248	1242.	0.934	506.	0.380	519.	0.390	550.	0.414
1.213	1.206	0.895	2.263	1.323	0.981	1.214	1242.	0.935	507.	0.382	519.	0.390	551.	0.415
1.179	1.206	0.895	2.229	1.322	0.980	1.180	1242.	0.935	509.	0.383	519.	0.391	552.	0.415
1.145	1.204	0.894	2.195	1.320	0.979	1.146	1242.	0.935	511.	0.385	520.	0.391	553.	0.416
1.111	1.203	0.893	2.161	1.321	0.980	1.112	1242.	0.935	513.	0.386	521.	0.392	553.	0.416
1.077	1.202	0.893	2.127	1.320	0.980	1.078	1242.	0.935	515.	0.387	521.	0.392	554.	0.417
1.044	1.202	0.893	2.094	1.318	0.979	1.045	1243.	0.935	516.	0.389	522.	0.393	554.	0.417
1.011	1.202	0.894	2.061	1.316	0.978	1.012	1242.	0.935	518.	0.390	522.	0.393	555.	0.418
0.977	1.199	0.891	2.027	1.314	0.977	0.978	1242.	0.935	520.	0.391	523.	0.393	556.	0.418
0.944	1.202	0.894	1.994	1.316	0.978	0.945	1242.	0.935	522.	0.393	523.	0.393	556.	0.418
0.909	1.1574	1.171	1.959	1.314	0.977	0.910	1243.	0.935	524.	0.394	523.	0.394	556.	0.419
0.897	2.640	1.969	1.947	1.312	0.976	0.898	1244.	0.936	525.	0.395	524.	0.394	557.	0.419
0.897	4.071	3.043	1.947	1.309	0.978	0.898	1243.	0.935	543.	0.408	527.	0.397	561.	0.422
0.865	4.050	3.027	1.915	1.308	0.977	0.866	1242.	0.935	545.	0.410	528.	0.397	561.	0.422
0.831	3.956	2.987	1.881	1.308	0.977	0.832	1243.	0.935	546.	0.411	528.	0.397	561.	0.422
0.797	3.921	2.933	1.847	1.307	0.977	0.798	1243.	0.935	548.	0.412	528.	0.398	561.	0.422
0.762	3.838	2.871	1.812	1.307	0.977	0.763	1243.	0.935	550.	0.413	529.	0.398	561.	0.422
0.728	3.757	2.810	1.778	1.307	0.977	0.729	1243.	0.936	551.	0.415	529.	0.398	561.	0.422
0.693	3.670	2.745	1.743	1.306	0.977	0.694	1243.	0.935	553.	0.416	529.	0.398	560.	0.422
0.659	3.575	2.676	1.709	1.303	0.975	0.660	1243.	0.935	554.	0.417	530.	0.399	560.	0.421
0.625	3.489	2.613	1.675	1.303	0.976	0.626	1243.	0.936	556.	0.419	530.	0.399	560.	0.422
0.587	3.404	2.549	1.637	1.301	0.974	0.588	1243.	0.936	558.	0.420	530.	0.399	560.	0.422
0.553	3.320	2.489	1.603	1.300	0.974	0.554	1244.	0.937	559.	0.421	531.	0.400	560.	0.422
0.522	17.757	13.308	1.572	15.821	11.858	0.523	1244.	0.937	561.	0.422	531.	0.400	560.	0.422
0.487	3.142	2.356	1.537	1.301	0.975	0.488	1244.	0.937	562.	0.423	531.	0.400	560.	0.422
0.453	3.024	2.270	1.503	1.297	0.973	0.454	1243.	0.936	564.	0.424	532.	0.400	560.	0.422
0.419	2.903	2.180	1.469	1.295	0.973	0.420	1245.	0.938	565.	0.426	532.	0.401	560.	0.422
			1.436	1.295	0.973	0.387	1246.	0.938	567.	0.427	532.	0.401	560.	0.422
			1.428	1.295	0.974	0.379	1246.	0.938	568.	0.428	533.	0.401	560.	0.422
0.368	2.837	1.984	1.418	1.294	0.974	0.369	1246.	0.938	570.	0.429	533.	0.401	560.	0.422
0.361	2.583	1.940	1.411	1.293	0.974	0.362	1247.	0.939	571.	0.430	533.	0.402	560.	0.422
0.352	2.537	1.911	1.402	1.293	0.974	0.353	1246.	0.939	573.	0.431	534.	0.402	561.	0.422
0.344	2.455	1.881	1.394	1.293	0.975	0.345	1247.	0.939	574.	0.432	534.	0.402	561.	0.422
0.339	2.458	1.854	1.389	1.290	0.973	0.340	1247.	0.939	575.	0.433	534.	0.402	561.	0.423
0.336	2.430	1.835	1.380	1.290	0.974	0.337	1247.	0.939	577.	0.434	535.	0.403	561.	0.423
0.332	2.405	1.817	1.382	1.290	0.974	0.333	1247.	0.939	578.	0.435	535.	0.403	562.	0.423
0.329	2.382	1.802	1.379	1.286	0.973	0.330	1247.	0.939	580.	0.437	536.	0.403	562.	0.423
0.325	2.366	1.791	1.375	1.288	0.975	0.326	1247.	0.939	581.	0.438	536.	0.404	562.	0.423

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GROUP	MODEL	MACH NO	PC (PSIA)	IQ (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
55.	139	7.92	148.7	1328.	15.42	14.58	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	W0-INF	ML-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.0	0.0163	1.320	0.714	3846.	0.447E-03	0.254E-05	0.677E 06	6.77	0.0.	0.30	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/T0	Tw1	Tw1/T0	Tw2	Tw2/T0	Tw3	Tw3/T0
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.321	2.349	1.780	1.371	1.287	0.975	0.322	1247.	0.939	582.	0.439	536.	0.404	562.	0.423
0.319	2.333	1.769	1.369	1.286	0.974	0.320	1247.	0.939	584.	0.440	537.	0.404	562.	0.423
0.315	2.318	1.756	1.365	1.286	0.975	0.316	1247.	0.939	585.	0.441	537.	0.404	562.	0.424
0.312	2.305	1.750	1.362	1.285	0.975	0.313	1247.	0.939	586.	0.442	538.	0.405	563.	0.424
0.309	2.289	1.740	1.359	1.280	0.973	0.310	1248.	0.940	588.	0.443	538.	0.405	563.	0.424
0.307	2.278	1.732	1.357	1.282	0.974	0.308	1248.	0.940	589.	0.444	538.	0.405	563.	0.424
0.305	2.266	1.725	1.355	1.282	0.975	0.306	1248.	0.940	590.	0.445	539.	0.406	563.	0.424
0.302	2.250	1.713	1.352	1.278	0.973	0.303	1248.	0.940	592.	0.446	539.	0.406	563.	0.424
0.298	2.239	1.707	1.348	1.280	0.975	0.299	1248.	0.940	593.	0.447	539.	0.406	564.	0.424
0.294	2.222	1.694	1.344	1.276	0.973	0.295	1248.	0.940	594.	0.448	540.	0.407	564.	0.425
0.290	2.208	1.685	1.340	1.278	0.975	0.291	1248.	0.940	596.	0.449	540.	0.407	564.	0.425
0.286	2.196	1.677	1.336	1.278	0.976	0.287	1248.	0.940	597.	0.449	541.	0.407	564.	0.425
0.284	2.181	1.665	1.334	1.275	0.974	0.285	1248.	0.940	598.	0.450	541.	0.408	565.	0.425
0.281	2.172	1.659	1.331	1.260	0.977	0.282	1249.	0.940	599.	0.451	541.	0.408	565.	0.425
0.278	2.162	1.650	1.328	1.280	0.976	0.279	1248.	0.940	601.	0.452	542.	0.408	565.	0.426
0.275	2.150	1.639	1.325	1.278	0.975	0.276	1248.	0.940	602.	0.453	542.	0.408	565.	0.426
0.272	2.142	1.633	1.322	1.280	0.975	0.273	1249.	0.940	603.	0.454	543.	0.409	566.	0.426
0.269	2.131	1.624	1.319	1.279	0.975	0.270	1249.	0.940	604.	0.455	543.	0.409	566.	0.426
0.263	2.116	1.612	1.313	1.280	0.976	0.264	1249.	0.941	606.	0.456	543.	0.409	566.	0.426
0.260	2.105	1.603	1.310	1.282	0.976	0.261	1250.	0.941	607.	0.457	544.	0.409	566.	0.427
0.257	2.088	1.590	1.307	1.279	0.973	0.258	1249.	0.941	608.	0.458	544.	0.410	567.	0.427
0.255	2.078	1.582	1.305	1.282	0.975	0.256	1250.	0.941	609.	0.459	545.	0.410	567.	0.427
0.252	2.068	1.573	1.302	1.283	0.975	0.253	1250.	0.941	610.	0.460	545.	0.410	567.	0.427
0.248	2.054	1.562	1.298	1.282	0.975	0.249	1250.	0.941	612.	0.460	546.	0.411	568.	0.427
0.244	2.041	1.552	1.294	1.282	0.975	0.245	1250.	0.941	613.	0.461	546.	0.411	568.	0.428
0.240	2.024	1.540	1.290	1.281	0.974	0.241	1250.	0.941	614.	0.462	546.	0.411	568.	0.428
0.237	2.008	1.527	1.287	1.282	0.975	0.238	1250.	0.941	615.	0.463	547.	0.412	569.	0.428
0.233	1.993	1.516	1.283	1.282	0.975	0.234	1251.	0.942	616.	0.464	547.	0.412	569.	0.429
0.230	1.976	1.503	1.280	1.282	0.975	0.231	1250.	0.942	617.	0.465	547.	0.412	569.	0.429
0.227	1.957	1.488	1.277	1.281	0.974	0.228	1251.	0.942	618.	0.466	548.	0.413	570.	0.429
0.224	1.936	1.473	1.274	1.281	0.974	0.225	1251.	0.942	620.	0.467	548.	0.413	570.	0.429
0.221	1.919	1.460	1.271	1.281	0.975	0.222	1251.	0.942	621.	0.467	549.	0.413	570.	0.430
0.217	1.895	1.443	1.267	1.280	0.974	0.218	1251.	0.942	622.	0.468	549.	0.414	571.	0.430
0.214	1.876	1.428	1.264	1.281	0.975	0.215	1252.	0.943	623.	0.469	550.	0.414	571.	0.430
0.211	1.856	1.412	1.261	1.280	0.974	0.212	1252.	0.943	624.	0.470	550.	0.414	571.	0.430
0.208	1.835	1.398	1.258	1.278	0.973	0.209	1252.	0.943	625.	0.471	550.	0.414	572.	0.430
0.207	1.818	1.384	1.257	1.279	0.974	0.208	1252.	0.943	626.	0.472	551.	0.415	572.	0.431
0.205	1.802	1.373	1.255	1.280	0.975	0.206	1252.	0.943	627.	0.472	551.	0.415	572.	0.431
0.203	1.782	1.359	1.253	1.277	0.974	0.204	1253.	0.944	628.	0.474	552.	0.416	572.	0.431
0.200	1.765	1.346	1.250	1.279	0.975	0.201	1253.	0.944	629.	0.474	552.	0.416	573.	0.432
0.197	1.746	1.333	1.247	1.276	0.974	0.198	1253.	0.944	630.	0.475	552.	0.416	573.	0.432
0.193	1.727	1.318	1.243	1.278	0.975	0.194	1254.	0.945	632.	0.476	553.	0.417	573.	0.432

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GROUP	MODEL	MACH NO	PO(PSIA)	TC(LEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
55.	139	7.92	147.7	1327.	15.42	14.58	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	RMO-INF	PL-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.0	0.0161	1.311	0.709	3844.	0.444E-03	0.254E-05	0.674E 06	6.77	0.0	0.30	22.58			
ZP1	PL1	PP1/PO1	ZP2	PL2	PP2/PO1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.190	1.709	1.303	1.240	1.279	0.975	0.191	1254.	0.945	633.	0.477	553.	0.417	574.	0.432
0.188	1.686	1.286	1.238	1.279	0.975	0.189	1254.	0.945	634.	0.478	554.	0.417	574.	0.432
0.185	1.669	1.272	1.235	1.280	0.975	0.186	1255.	0.945	635.	0.478	554.	0.418	574.	0.433
0.182	1.651	1.256	1.232	1.281	0.975	0.183	1255.	0.946	636.	0.479	555.	0.418	574.	0.433
0.179	1.629	1.239	1.229	1.281	0.974	0.180	1255.	0.946	637.	0.480	555.	0.418	574.	0.433
0.177	1.610	1.224	1.227	1.282	0.975	0.178	1255.	0.946	638.	0.481	556.	0.419	575.	0.433
0.174	1.590	1.209	1.224	1.283	0.975	0.175	1256.	0.946	639.	0.481	556.	0.419	575.	0.433
0.171	1.565	1.193	1.221	1.281	0.974	0.172	1256.	0.946	640.	0.482	556.	0.419	575.	0.433
0.168	1.552	1.179	1.218	1.284	0.976	0.169	1256.	0.947	641.	0.483	557.	0.419	575.	0.433
0.166	1.531	1.163	1.216	1.283	0.974	0.167	1257.	0.947	642.	0.484	557.	0.420	575.	0.434
0.164	1.511	1.148	1.214	1.282	0.974	0.165	1257.	0.947	643.	0.484	557.	0.420	576.	0.434
0.162	1.495	1.134	1.212	1.284	0.974	0.163	1257.	0.947	644.	0.485	558.	0.420	576.	0.434
0.159	1.475	1.119	1.209	1.284	0.974	0.160	1257.	0.947	645.	0.486	558.	0.421	576.	0.434
0.156	1.454	1.104	1.206	1.283	0.975	0.157	1258.	0.948	646.	0.487	559.	0.421	576.	0.434
0.153	1.435	1.090	1.203	1.284	0.974	0.154	1258.	0.948	647.	0.487	559.	0.421	576.	0.434
0.150	1.414	1.074	1.200	1.285	0.976	0.151	1258.	0.948	648.	0.488	559.	0.422	576.	0.434
0.148	1.396	1.060	1.198	1.285	0.975	0.149	1258.	0.948	649.	0.489	560.	0.422	576.	0.434
0.145	1.375	1.045	1.195	1.285	0.976	0.146	1259.	0.948	650.	0.490	560.	0.422	577.	0.434
0.143	1.355	1.028	1.193	1.283	0.974	0.144	1259.	0.949	651.	0.490	561.	0.423	577.	0.435
0.140	1.335	1.014	1.190	1.283	0.975	0.141	1259.	0.949	652.	0.491	561.	0.423	577.	0.435
0.137	1.315	0.998	1.187	1.284	0.974	0.138	1259.	0.949	653.	0.492	562.	0.423	577.	0.435
0.134	1.296	0.984	1.184	1.284	0.974	0.135	1259.	0.949	653.	0.492	562.	0.424	577.	0.435
0.131	1.276	0.969	1.181	1.284	0.974	0.132	1260.	0.949	654.	0.493	562.	0.424	577.	0.435
0.127	1.254	0.953	1.177	1.284	0.975	0.128	1260.	0.949	655.	0.494	563.	0.424	577.	0.435
0.123	1.231	0.935	1.173	1.282	0.973	0.124	1259.	0.949	656.	0.495	563.	0.425	577.	0.435
0.120	1.207	0.917	1.170	1.284	0.975	0.121	1259.	0.949	657.	0.495	564.	0.425	577.	0.435
0.116	1.181	0.897	1.166	1.284	0.974	0.117	1258.	0.948	658.	0.496	564.	0.425	577.	0.435
0.112	1.156	0.878	1.162	1.281	0.973	0.113	1257.	0.947	659.	0.497	564.	0.425	578.	0.435
0.110	1.130	0.859	1.160	1.281	0.974	0.111	1256.	0.947	660.	0.497	565.	0.426	578.	0.435
0.108	1.106	0.841	1.158	1.281	0.974	0.109	1255.	0.946	661.	0.498	566.	0.426	578.	0.435
0.105	1.083	0.824	1.155	1.284	0.976	0.106	1253.	0.945	662.	0.499	566.	0.426	578.	0.436
0.101	1.060	0.806	1.151	1.283	0.975	0.102	1251.	0.943	663.	0.499	566.	0.427	578.	0.436
0.099	1.035	0.787	1.149	1.283	0.975	0.100	1248.	0.941	664.	0.500	567.	0.427	578.	0.436
0.096	1.009	0.767	1.146	1.281	0.974	0.097	1245.	0.938	664.	0.501	567.	0.427	579.	0.436
0.093	0.985	0.748	1.143	1.281	0.974	0.094	1241.	0.936	665.	0.502	568.	0.428	579.	0.436
0.089	0.959	0.730	1.139	1.282	0.975	0.090	1237.	0.933	666.	0.502	568.	0.428	579.	0.437
0.086	0.933	0.710	1.136	1.280	0.974	0.087	1231.	0.928	667.	0.503	569.	0.429	579.	0.437
0.082	0.906	0.690	1.132	1.281	0.975	0.083	1223.	0.923	668.	0.504	569.	0.429	579.	0.437
0.078	0.877	0.668	1.128	1.280	0.975	0.079	1214.	0.915	669.	0.504	569.	0.429	580.	0.437
0.074	0.845	0.644	1.124	1.281	0.975	0.075	1204.	0.908	670.	0.505	570.	0.430	580.	0.437
0.071	0.815	0.621	1.121	1.281	0.975	0.072	1192.	0.899	670.	0.506	570.	0.430	580.	0.437
0.067	0.785	0.598	1.117	1.281	0.975	0.068	1179.	0.889	671.	0.506	571.	0.430	580.	0.438

DATE = 9-20-73  
 PROJECT NUMBER VA353-21EA  
 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 NASA/RI OH9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO.	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
55	139	7.92	147.8	1326.	15.42	14.58	30.00	180.00	0					
T-INF	P-INF	PO1	O-INF	L-INF	MMO-INF	ML-INF	RE/FT	X	Y					
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)					
97.9	0.0162	1.312	0.709	3843.	0.445E-03	0.253E-05	0.675E 06	6.77	0.0					
X/L	L													
0.30	22.58													
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PC1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.062	0.749	0.571	1.112	1.278	0.974	0.063	1163.	0.877	672.	0.507	571.	0.431	581.	0.438
0.059	0.718	0.547	1.109	1.279	0.974	0.060	1141.	0.860	673.	0.508	572.	0.431	581.	0.438
0.054	0.686	0.523	1.104	1.279	0.974	0.055	1121.	0.846	674.	0.508	572.	0.432	581.	0.438
0.051	0.652	0.497	1.101	1.278	0.974	0.052	1101.	0.830	675.	0.509	573.	0.432	581.	0.438
0.046	0.619	0.472	1.096	1.276	0.973	0.047	1079.	0.814	676.	0.509	574.	0.433	581.	0.439
0.044	0.592	0.452	1.094	1.280	0.976	0.045	1064.	0.802	676.	0.510	574.	0.433	582.	0.439
0.041	0.564	0.430	1.091	1.279	0.976	0.042	1047.	0.789	677.	0.511	575.	0.433	582.	0.439
0.038	0.535	0.408	1.088	1.276	0.973	0.039	1027.	0.774	678.	0.511	575.	0.434	582.	0.439
0.034	0.512	0.391	1.084	1.277	0.974	0.035	1009.	0.761	679.	0.512	576.	0.434	582.	0.439
0.031	0.490	0.374	1.081	1.279	0.976	0.032	991.	0.747	680.	0.513	576.	0.434	583.	0.439
0.028	0.468	0.357	1.078	1.280	0.976	0.029	972.	0.733	680.	0.513	577.	0.435	583.	0.440
0.025	0.446	0.340	1.075	1.279	0.975	0.026	952.	0.718	681.	0.514	577.	0.435	583.	0.440
0.022	0.425	0.325	1.072	1.278	0.975	0.023	933.	0.703	682.	0.514	577.	0.435	583.	0.440
0.018	0.411	0.313	1.068	1.279	0.975	0.019	914.	0.689	683.	0.515	578.	0.436	584.	0.440
0.015	0.391	0.298	1.065	1.278	0.975	0.016	895.	0.675	684.	0.516	578.	0.436	584.	0.440
0.011	0.379	0.289	1.061	1.280	0.975	0.012	873.	0.659	684.	0.516	579.	0.436	584.	0.440
0.006	0.366	0.279	1.056	1.280	0.975	0.007	833.	0.628	685.	0.517	579.	0.437	584.	0.441
0.007	0.339	0.259	1.057	1.278	0.975	0.008	810.	0.611	667.	0.518	580.	0.437	585.	0.441

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 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PRÉBEND	ROLL-MODEL	YAW					
56.	139	7.62	151.8	1325.	15.43	14.57	30.00	180.00	0					
T-INF	P-INF	FOI	Q-INF	U-INF	HMO-INF	HU-INF	HE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.8	0.0166	1.348	0.729	3841.	0.458E-03	0.253E-05	0.694E 06	4.52	0.0	0.20	22.58			
ZP1	PF1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	IT2	IT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
1.310	1.207	0.895	2.360	1.316	0.976	1.311	1236.	0.933	521.	0.393	531.	0.401	553.	0.418
1.268	1.208	0.896	2.338	1.316	0.976	1.289	1237.	0.934	522.	0.395	531.	0.401	555.	0.419
1.254	1.209	0.897	2.304	1.318	0.977	1.255	1237.	0.934	525.	0.396	532.	0.401	556.	0.419
1.220	1.208	0.895	2.270	1.316	0.975	1.221	1237.	0.933	527.	0.398	532.	0.401	556.	0.420
1.186	1.209	0.896	2.236	1.319	0.977	1.187	1237.	0.934	529.	0.399	532.	0.402	557.	0.420
1.151	1.210	0.896	2.201	1.316	0.975	1.152	1237.	0.934	531.	0.400	533.	0.402	558.	0.421
1.116	1.209	0.896	2.166	1.318	0.976	1.117	1237.	0.934	533.	0.402	533.	0.402	558.	0.421
1.081	1.211	0.897	2.131	1.319	0.976	1.082	1237.	0.934	535.	0.403	533.	0.403	559.	0.422
1.045	1.211	0.897	2.095	1.321	0.978	1.046	1237.	0.934	536.	0.405	534.	0.403	559.	0.423
1.011	1.212	0.898	2.061	1.320	0.977	1.012	1237.	0.934	538.	0.407	534.	0.404	560.	0.423
0.977	1.212	0.897	2.027	1.318	0.976	0.978	1237.	0.935	540.	0.408	534.	0.404	561.	0.423
0.942	1.214	0.899	1.992	1.321	0.977	0.943	1237.	0.934	542.	0.409	535.	0.404	561.	0.424
0.908	1.211	0.897	1.958	1.320	0.977	0.909	1237.	0.934	544.	0.411	535.	0.404	562.	0.424
0.874	1.210	0.895	1.924	1.318	0.976	0.875	1237.	0.935	546.	0.412	536.	0.405	562.	0.424
0.838	15.695	11.624	1.888	15.604	11.705	0.839	1237.	0.935	548.	0.414	536.	0.405	562.	0.425
0.802	1.212	0.897	1.852	1.321	0.977	0.803	1237.	0.935	550.	0.415	536.	0.405	563.	0.425
0.767	1.210	0.896	1.817	1.321	0.978	0.768	1237.	0.934	552.	0.417	537.	0.405	563.	0.425
0.732	1.212	0.898	1.782	1.319	0.977	0.733	1237.	0.934	554.	0.418	537.	0.406	563.	0.426
0.698	1.876	1.389	1.748	1.320	0.977	0.699	1241.	0.937	556.	0.419	538.	0.406	564.	0.426
0.691	4.308	3.203	1.741	1.315	0.977	0.692	1241.	0.937	572.	0.432	545.	0.412	566.	0.427
0.655	4.256	3.166	1.705	1.314	0.977	0.656	1240.	0.937	574.	0.433	546.	0.413	566.	0.427
0.617	4.149	3.087	1.667	1.312	0.976	0.618	1240.	0.937	576.	0.435	547.	0.413	566.	0.427
0.585	4.026	2.999	1.635	1.313	0.978	0.586	1241.	0.937	577.	0.436	548.	0.414	566.	0.427
0.550	3.894	2.901	1.600	1.312	0.977	0.551	1241.	0.937	579.	0.437	549.	0.415	566.	0.427
0.514	3.739	2.790	1.564	1.310	0.977	0.515	1241.	0.937	580.	0.438	550.	0.416	566.	0.428
0.478	3.578	2.671	1.528	1.311	0.978	0.479	1241.	0.938	582.	0.440	551.	0.416	566.	0.427
0.443	3.416	2.552	1.493	1.309	0.977	0.444	1242.	0.938	584.	0.441	552.	0.417	566.	0.427
0.408	3.260	2.435	1.458	1.307	0.976	0.409	1242.	0.938	585.	0.442	553.	0.418	566.	0.427
0.372	3.119	2.333	1.422	1.308	0.978	0.373	1243.	0.939	587.	0.443	555.	0.419	566.	0.427
			1.387	1.305	0.976	0.338	1244.	0.939	588.	0.444	558.	0.421	565.	0.427
			1.360	1.306	0.978	0.311	1244.	0.940	590.	0.445	559.	0.422	565.	0.427
0.301	2.726	2.041	1.351	1.305	0.977	0.302	1244.	0.940	591.	0.447	560.	0.423	565.	0.427
0.291	2.644	1.963	1.341	1.305	0.978	0.292	1245.	0.940	593.	0.448	562.	0.424	565.	0.427
0.282	2.581	1.937	1.332	1.304	0.978	0.283	1245.	0.940	594.	0.449	563.	0.425	565.	0.427
0.272	2.520	1.893	1.322	1.302	0.977	0.273	1245.	0.940	596.	0.450	564.	0.426	566.	0.427
0.262	2.468	1.854	1.312	1.301	0.977	0.263	1246.	0.941	597.	0.451	566.	0.427	566.	0.427
0.253	2.415	1.815	1.303	1.301	0.977	0.254	1246.	0.941	599.	0.452	567.	0.428	566.	0.427
0.244	2.364	1.777	1.294	1.302	0.978	0.245	1247.	0.942	600.	0.453	568.	0.429	566.	0.427
0.239	2.316	1.741	1.289	1.303	0.979	0.240	1247.	0.942	601.	0.454	569.	0.430	566.	0.427
0.234	2.273	1.708	1.284	1.299	0.976	0.235	1247.	0.942	603.	0.455	571.	0.431	566.	0.427
0.231	2.240	1.683	1.281	1.302	0.978	0.232	1248.	0.942	604.	0.456	572.	0.432	566.	0.427
0.228	2.208	1.659	1.278	1.302	0.978	0.229	1247.	0.942	606.	0.457	573.	0.433	566.	0.428

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 ARO, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO.	PC (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
56.	139	7.42	149.8	1324.	15.42	14.58	30.00	180.00	0					
T-INF	P-INF	PO1	O-INF	U-INF	HMO-INF	PL-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.7	0.0164	1.331	0.719	3840.	0.452E-03	0.253E-05	0.686E 06	4.52	0.0	0.20	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TY2	TT2/TO	Tw1	Tw1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.225	2.176	1.635	1.275	1.302	0.978	0.226	1247.	0.942	607.	0.458	574.	0.434	566.	0.428
0.222	2.147	1.613	1.272	1.300	0.977	0.223	1248.	0.943	608.	0.459	575.	0.435	566.	0.428
0.218	2.122	1.596	1.268	1.302	0.979	0.219	1248.	0.943	610.	0.460	576.	0.435	567.	0.428
0.215	2.098	1.577	1.265	1.300	0.978	0.216	1248.	0.943	611.	0.461	577.	0.436	567.	0.428
0.212	2.070	1.556	1.262	1.300	0.977	0.213	1249.	0.943	612.	0.462	578.	0.437	567.	0.428
0.207	2.039	1.533	1.257	1.299	0.976	0.208	1249.	0.944	614.	0.463	579.	0.438	567.	0.428
0.204	2.010	1.512	1.254	1.300	0.978	0.205	1250.	0.944	615.	0.464	580.	0.438	568.	0.429
0.200	1.982	1.492	1.250	1.299	0.978	0.201	1250.	0.944	616.	0.465	581.	0.439	568.	0.429
0.197	1.954	1.471	1.247	1.299	0.978	0.198	1250.	0.944	617.	0.466	582.	0.440	568.	0.429
0.195	1.929	1.452	1.245	1.299	0.978	0.196	1250.	0.944	619.	0.467	583.	0.440	569.	0.429
0.192	1.902	1.433	1.242	1.296	0.978	0.193	1251.	0.945	620.	0.468	584.	0.441	569.	0.430
0.187	1.867	1.403	1.237	1.296	0.978	0.188	1251.	0.945	621.	0.469	585.	0.442	569.	0.430
0.183	1.850	1.395	1.233	1.297	0.978	0.184	1251.	0.945	622.	0.470	586.	0.442	570.	0.430
0.180	1.820	1.373	1.230	1.295	0.977	0.181	1252.	0.945	623.	0.471	587.	0.443	570.	0.430
0.175	1.790	1.350	1.225	1.295	0.977	0.176	1252.	0.946	625.	0.472	587.	0.444	570.	0.431
0.169	1.757	1.326	1.219	1.294	0.977	0.170	1252.	0.946	626.	0.473	588.	0.444	570.	0.431
0.165	1.720	1.303	1.215	1.295	0.977	0.166	1253.	0.947	627.	0.474	589.	0.445	571.	0.431
0.160	1.694	1.280	1.210	1.294	0.977	0.161	1253.	0.947	628.	0.475	590.	0.446	571.	0.432
0.152	1.656	1.252	1.202	1.294	0.978	0.153	1254.	0.948	629.	0.476	591.	0.447	571.	0.432
0.147	1.620	1.225	1.197	1.293	0.978	0.148	1255.	0.948	631.	0.477	591.	0.447	571.	0.432
0.144	1.583	1.199	1.194	1.292	0.978	0.145	1255.	0.949	632.	0.477	592.	0.448	572.	0.432
0.138	1.549	1.173	1.188	1.291	0.978	0.139	1256.	0.949	633.	0.478	593.	0.448	572.	0.432
0.134	1.515	1.147	1.184	1.291	0.978	0.135	1256.	0.949	634.	0.479	594.	0.449	572.	0.432
0.130	1.481	1.122	1.180	1.289	0.977	0.131	1257.	0.950	635.	0.480	595.	0.449	572.	0.433
0.127	1.449	1.099	1.177	1.291	0.979	0.128	1257.	0.950	636.	0.481	595.	0.450	573.	0.433
0.123	1.415	1.074	1.173	1.287	0.977	0.124	1258.	0.950	637.	0.482	596.	0.451	573.	0.433
0.120	1.390	1.056	1.170	1.289	0.979	0.121	1258.	0.951	638.	0.482	597.	0.451	573.	0.433
0.116	1.361	1.034	1.166	1.288	0.978	0.117	1259.	0.951	639.	0.483	597.	0.452	573.	0.433
0.110	1.331	1.012	1.160	1.285	0.976	0.111	1259.	0.952	640.	0.484	598.	0.452	573.	0.433
0.105	1.303	0.991	1.155	1.286	0.978	0.106	1259.	0.952	642.	0.485	599.	0.453	573.	0.433
0.101	1.271	0.968	1.151	1.284	0.977	0.102	1259.	0.952	643.	0.486	600.	0.453	574.	0.433
0.100	1.242	0.947	1.150	1.284	0.978	0.101	1259.	0.952	644.	0.487	600.	0.454	574.	0.434
0.096	1.215	0.926	1.146	1.284	0.978	0.097	1259.	0.951	645.	0.487	601.	0.454	574.	0.434
0.091	1.185	0.903	1.141	1.283	0.977	0.092	1258.	0.951	646.	0.488	602.	0.455	574.	0.434
0.088	1.155	0.881	1.138	1.281	0.977	0.089	1256.	0.949	647.	0.489	602.	0.455	574.	0.434
0.084	1.125	0.859	1.134	1.281	0.977	0.085	1253.	0.947	648.	0.490	603.	0.456	574.	0.434
0.079	1.095	0.835	1.129	1.281	0.978	0.080	1249.	0.944	649.	0.490	603.	0.456	575.	0.434
0.075	1.061	0.810	1.125	1.279	0.976	0.076	1245.	0.941	650.	0.491	604.	0.457	575.	0.434
0.072	1.032	0.789	1.122	1.280	0.979	0.073	1239.	0.936	651.	0.492	604.	0.457	575.	0.435
0.068	0.995	0.761	1.118	1.280	0.978	0.069	1230.	0.930	652.	0.493	605.	0.457	575.	0.435
0.064	0.955	0.733	1.114	1.280	0.978	0.065	1221.	0.923	653.	0.493	606.	0.458	576.	0.435
0.060	0.924	0.706	1.110	1.283	0.979	0.061	1208.	0.913	654.	0.494	606.	0.458	576.	0.435

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ARNOLD AIR FORCE STATION, TENN.  
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GROUP	MODEL	MACH NO	PO (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
56.	139	7.92	147.7	1323.	15.42	14.58	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	L-INF (FT/SEC)	MHO-INF (LBM/FT3)	MU-INF (LEM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
97.7	0.0161	1.311	0.709	3838.	0.446E-03	0.253E-05	0.677E 06	4.52	0.0	0.20	22.58			
ZP1 (IN)	PF1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TC	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TC	Tw3 (DEG R)	Tw3/TO
0.057	0.868	0.677	1.107	1.284	0.979	0.058	1194.	0.903	655.	0.495	607.	0.459	576.	0.436
0.053	0.847	0.645	1.103	1.285	0.978	0.054	1178.	0.890	656.	0.496	608.	0.459	576.	0.436
0.049	0.809	0.615	1.099	1.285	0.977	0.050	1162.	0.878	657.	0.496	608.	0.460	577.	0.436
0.046	0.773	0.588	1.096	1.286	0.977	0.047	1149.	0.869	658.	0.497	609.	0.460	577.	0.436
0.043	0.737	0.560	1.093	1.289	0.979	0.044	1130.	0.854	659.	0.498	610.	0.461	577.	0.436
0.038	0.699	0.536	1.088	1.291	0.980	0.039	1102.	0.833	660.	0.499	610.	0.461	577.	0.436
0.035	0.661	0.501	1.085	1.291	0.978	0.036	1076.	0.813	661.	0.499	611.	0.462	577.	0.436
0.031	0.628	0.476	1.081	1.293	0.980	0.032	1044.	0.789	662.	0.500	611.	0.462	578.	0.437
0.026	0.594	0.450	1.076	1.292	0.978	0.027	1012.	0.765	663.	0.501	612.	0.462	578.	0.437
0.022	0.560	0.423	1.072	1.292	0.977	0.023	980.	0.741	663.	0.501	613.	0.463	578.	0.437
0.018	0.533	0.403	1.068	1.292	0.977	0.019	945.	0.714	664.	0.502	613.	0.463	578.	0.437
0.015	0.507	0.384	1.065	1.295	0.980	0.016	917.	0.693	665.	0.503	614.	0.464	578.	0.437
0.011	0.479	0.362	1.061	1.293	0.977	0.012	892.	0.674	666.	0.504	614.	0.464	578.	0.437
0.008	0.456	0.345	1.058	1.292	0.976	0.009	853.	0.644	667.	0.504	615.	0.465	578.	0.437
0.007	0.425	0.321	1.057	1.294	0.978	0.008	846.	0.639	669.	0.505	616.	0.466	578.	0.437

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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW					
57.	139	7.95	251.5	1330.	29.96	0.04	30.00	180.00	0					
T-INF	P-INF	F01	Q-INF	U-INF	HMO-INF	PL-INF	FE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FTJ)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.5	0.0268	2.196	1.187	3850.	0.742E-03	0.252E-05	0.113E 07	13.55	0.0	0.60	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/JO	TW1	TW1/JO	TW2	TW2/JO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
			2.449	1.960	0.893	1.400	1263.	0.949	531.	0.399	532.	0.400	554.	0.416
			2.427	1.961	0.892	1.378	1262.	0.949	534.	0.401	533.	0.401	559.	0.420
			2.392	1.963	0.893	1.343	1262.	0.949	537.	0.404	535.	0.402	564.	0.424
			2.357	1.964	0.892	1.308	1262.	0.949	540.	0.406	536.	0.403	569.	0.427
			2.322	1.963	0.892	1.273	1262.	0.949	543.	0.408	537.	0.404	573.	0.431
			2.287	1.956	0.889	1.238	1262.	0.949	546.	0.411	539.	0.405	577.	0.434
			2.251	1.951	0.889	1.202	1262.	0.949	550.	0.413	540.	0.406	580.	0.436
			2.213	1.945	0.889	1.164	1262.	0.949	553.	0.416	541.	0.407	583.	0.438
			2.177	1.940	0.890	1.128	1258.	0.946	556.	0.418	543.	0.408	585.	0.440
			2.165	1.906	0.890	1.116	1265.	0.951	586.	0.441	554.	0.416	608.	0.457
1.080	6.487	3.033	2.130	1.900	0.889	1.081	1264.	0.950	589.	0.443	555.	0.417	610.	0.459
1.046	7.027	3.291	2.096	1.900	0.890	1.047	1265.	0.951	592.	0.445	556.	0.418	611.	0.459
1.011	7.244	3.394	2.061	1.899	0.890	1.012	1265.	0.951	595.	0.448	557.	0.419	612.	0.460
0.976	7.346	3.442	2.026	1.898	0.889	0.977	1265.	0.951	598.	0.450	559.	0.420	614.	0.461
0.940	7.410	3.471	1.990	1.899	0.890	0.941	1266.	0.952	601.	0.452	559.	0.421	616.	0.463
0.904	7.475	3.490	1.954	1.907	0.890	0.905	1266.	0.952	604.	0.454	561.	0.422	617.	0.464
0.869	7.530	3.508	1.919	1.910	0.890	0.870	1266.	0.952	607.	0.456	562.	0.422	619.	0.465
0.833	7.570	3.518	1.883	1.915	0.890	0.834	1266.	0.952	610.	0.459	563.	0.423	620.	0.466
0.797	7.606	3.528	1.847	1.916	0.889	0.798	1266.	0.952	613.	0.461	564.	0.424	622.	0.468
0.761	7.642	3.540	1.811	1.919	0.889	0.762	1266.	0.952	616.	0.463	565.	0.425	623.	0.469
0.725	7.665	3.551	1.775	1.919	0.889	0.726	1266.	0.952	618.	0.465	566.	0.426	625.	0.470
0.690	7.689	3.558	1.740	1.921	0.889	0.691	1266.	0.951	621.	0.467	567.	0.426	627.	0.471
0.654	7.730	3.576	1.704	1.915	0.886	0.655	1265.	0.951	624.	0.469	568.	0.427	627.	0.471
0.618	7.815	3.616	1.668	1.918	0.888	0.619	1266.	0.951	627.	0.471	569.	0.428	628.	0.472
0.582	7.911	3.659	1.632	1.921	0.888	0.583	1265.	0.951	629.	0.473	570.	0.428	630.	0.474
0.547	7.961	3.681	1.597	1.920	0.888	0.548	1265.	0.951	632.	0.475	571.	0.429	632.	0.475
0.510	8.002	3.696	1.560	1.920	0.887	0.511	1266.	0.951	634.	0.477	572.	0.430	633.	0.475
0.475	7.994	3.694	1.525	1.915	0.885	0.476	1266.	0.951	637.	0.479	573.	0.431	634.	0.476
0.439	7.911	3.654	1.489	1.917	0.886	0.440	1267.	0.952	639.	0.480	574.	0.431	635.	0.477
0.413	7.814	3.608	1.463	1.917	0.885	0.414	1267.	0.952	642.	0.482	575.	0.432	636.	0.478
0.403	7.756	3.580	1.453	1.919	0.886	0.404	1267.	0.952	644.	0.484	576.	0.433	637.	0.479
0.393	7.713	3.560	1.443	1.918	0.885	0.394	1267.	0.952	647.	0.486	577.	0.433	638.	0.479
0.383	7.675	3.541	1.433	1.917	0.885	0.384	1268.	0.952	649.	0.488	578.	0.434	639.	0.480
0.382	7.650	3.530	1.432	1.918	0.885	0.383	1267.	0.952	651.	0.489	579.	0.435	640.	0.481
0.375	7.628	3.518	1.425	1.918	0.885	0.376	1267.	0.952	654.	0.491	580.	0.436	641.	0.482
0.370	7.606	3.508	1.420	1.919	0.885	0.371	1268.	0.952	656.	0.493	581.	0.436	642.	0.482
0.365	7.579	3.496	1.415	1.920	0.886	0.366	1268.	0.952	658.	0.495	582.	0.437	643.	0.483
0.357	7.545	3.480	1.407	1.918	0.885	0.358	1268.	0.952	660.	0.496	583.	0.438	644.	0.484
0.353	7.518	3.469	1.403	1.919	0.886	0.354	1267.	0.952	663.	0.498	584.	0.439	645.	0.484
0.348	7.495	3.457	1.398	1.919	0.885	0.349	1268.	0.953	665.	0.500	585.	0.439	645.	0.485
0.345	7.470	3.445	1.395	1.921	0.886	0.346	1268.	0.953	667.	0.501	586.	0.440	646.	0.486
0.339	7.446	3.434	1.389	1.917	0.884	0.340	1268.	0.953	669.	0.503	587.	0.441	647.	0.486



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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
57.	139	7.95	248.3	1331.	29.98	0.02	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	HMC-INF	MC-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.6	0.0265	2.167	1.172	3851.	0.732E-03	0.253E-05	0.112E 07	13.55	0.0	0.60	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.335	7.424	3.425	1.385	1.917	0.884	0.336	1268.	0.953	671.	0.504	587.	0.441	648.	0.487
0.330	7.399	3.415	1.380	1.920	0.886	0.331	1268.	0.953	673.	0.506	588.	0.442	649.	0.487
0.326	7.375	3.403	1.376	1.916	0.884	0.327	1268.	0.953	675.	0.507	589.	0.443	650.	0.488
0.322	7.351	3.393	1.372	1.917	0.885	0.323	1268.	0.953	677.	0.509	590.	0.443	651.	0.489
0.317	7.329	3.383	1.367	1.919	0.886	0.318	1269.	0.953	679.	0.510	591.	0.444	651.	0.489
0.312	7.303	3.369	1.362	1.919	0.885	0.313	1269.	0.954	681.	0.512	592.	0.445	652.	0.490
0.305	7.289	3.354	1.355	1.916	0.884	0.306	1269.	0.953	683.	0.513	593.	0.445	653.	0.491
0.301	7.257	3.340	1.351	1.916	0.885	0.302	1269.	0.954	685.	0.515	594.	0.446	654.	0.491
0.296	7.215	3.329	1.346	1.916	0.884	0.297	1270.	0.954	687.	0.516	595.	0.447	655.	0.492
0.291	7.190	3.317	1.341	1.919	0.885	0.292	1270.	0.954	689.	0.518	595.	0.447	656.	0.493
0.285	7.164	3.305	1.335	1.919	0.885	0.286	1270.	0.954	691.	0.519	596.	0.448	656.	0.493
0.279	7.130	3.289	1.329	1.917	0.884	0.280	1270.	0.954	692.	0.520	597.	0.449	657.	0.494
0.273	7.097	3.274	1.323	1.919	0.885	0.274	1270.	0.954	694.	0.522	598.	0.449	658.	0.494
0.269	7.067	3.261	1.319	1.917	0.884	0.270	1270.	0.954	696.	0.523	599.	0.450	659.	0.495
0.263	7.034	3.247	1.313	1.917	0.885	0.264	1271.	0.955	698.	0.524	600.	0.451	660.	0.496
0.258	7.005	3.232	1.308	1.917	0.885	0.259	1271.	0.955	700.	0.526	601.	0.451	660.	0.496
0.253	6.971	3.216	1.303	1.917	0.884	0.254	1271.	0.955	701.	0.527	601.	0.452	661.	0.497
0.248	6.940	3.201	1.298	1.919	0.885	0.249	1271.	0.955	703.	0.528	602.	0.452	662.	0.497
0.243	6.909	3.187	1.293	1.917	0.884	0.244	1271.	0.955	705.	0.530	603.	0.453	662.	0.498
0.238	6.877	3.173	1.288	1.919	0.885	0.239	1272.	0.955	706.	0.531	604.	0.454	663.	0.498
0.233	6.844	3.158	1.283	1.919	0.885	0.234	1272.	0.955	708.	0.532	605.	0.454	664.	0.499
0.228	6.816	3.142	1.278	1.919	0.885	0.229	1272.	0.956	710.	0.533	605.	0.455	665.	0.499
0.222	6.784	3.128	1.272	1.920	0.885	0.223	1272.	0.956	711.	0.534	606.	0.456	665.	0.500
0.218	6.752	3.113	1.268	1.919	0.885	0.219	1272.	0.956	713.	0.536	607.	0.456	666.	0.500
0.212	6.719	3.099	1.262	1.918	0.885	0.213	1273.	0.956	714.	0.537	608.	0.457	667.	0.501
0.207	6.689	3.084	1.257	1.920	0.885	0.208	1273.	0.956	716.	0.538	609.	0.457	667.	0.501
0.202	6.661	3.070	1.252	1.921	0.885	0.203	1273.	0.956	718.	0.539	610.	0.458	668.	0.502
0.198	6.632	3.056	1.248	1.921	0.885	0.199	1273.	0.956	719.	0.540	610.	0.458	669.	0.502
0.194	6.605	3.044	1.244	1.920	0.885	0.195	1274.	0.956	721.	0.541	611.	0.459	669.	0.503
0.190	6.578	3.031	1.240	1.920	0.885	0.191	1274.	0.956	722.	0.542	612.	0.459	670.	0.503
0.186	6.546	3.018	1.236	1.920	0.885	0.187	1274.	0.956	724.	0.543	613.	0.460	671.	0.504
0.182	6.514	3.002	1.232	1.920	0.885	0.183	1275.	0.957	725.	0.544	614.	0.461	671.	0.504
0.177	6.483	2.986	1.227	1.922	0.885	0.178	1275.	0.957	727.	0.546	614.	0.461	672.	0.504
0.173	6.444	2.968	1.223	1.920	0.884	0.174	1275.	0.957	728.	0.547	615.	0.462	673.	0.505
0.169	6.411	2.953	1.219	1.921	0.885	0.170	1276.	0.958	730.	0.548	616.	0.462	673.	0.505
0.166	6.363	2.939	1.214	1.922	0.885	0.167	1276.	0.958	731.	0.549	617.	0.463	674.	0.506
0.162	6.351	2.924	1.212	1.922	0.885	0.163	1276.	0.958	732.	0.550	618.	0.464	674.	0.506
0.158	6.316	2.907	1.208	1.924	0.886	0.159	1277.	0.958	734.	0.551	618.	0.464	675.	0.507
0.155	6.275	2.889	1.205	1.922	0.885	0.156	1278.	0.959	735.	0.552	619.	0.465	675.	0.507
0.152	6.235	2.870	1.202	1.922	0.885	0.153	1278.	0.959	736.	0.553	620.	0.465	676.	0.508
0.149	6.197	2.853	1.199	1.924	0.886	0.150	1278.	0.960	738.	0.554	620.	0.466	677.	0.508
0.145	6.157	2.834	1.195	1.924	0.886	0.146	1278.	0.960	739.	0.555	621.	0.466	677.	0.508

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GROUP	MODEL	MACH NO.	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
57.	139	7.95	248.8	1332.	29.98	0.02	30.00	180.00	0					
T-INF	P-INF	PO1	Q-INF	U-INF	HMC-INF	PU-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
57.7	0.0265	2.172	1.174	3852.	0.733E-03	0.253E-05	0.112E 07	13.55	0.0	0.60	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.143	6.117	2.816	1.193	1.925	0.886	0.144	1279.	0.960	740.	0.556	622.	0.467	678.	0.509
0.140	6.084	2.799	1.190	1.925	0.886	0.141	1280.	0.961	742.	0.557	623.	0.467	678.	0.509
0.139	6.050	2.783	1.189	1.925	0.886	0.140	1279.	0.960	743.	0.558	624.	0.468	679.	0.510
0.135	6.015	2.767	1.185	1.928	0.887	0.136	1280.	0.961	744.	0.559	624.	0.469	680.	0.510
0.132	5.977	2.750	1.182	1.928	0.887	0.133	1281.	0.961	746.	0.560	625.	0.469	680.	0.511
0.130	5.939	2.731	1.180	1.931	0.888	0.131	1281.	0.962	747.	0.561	626.	0.470	681.	0.511
0.128	5.899	2.713	1.178	1.935	0.890	0.129	1281.	0.961	748.	0.562	626.	0.470	681.	0.511
0.124	5.850	2.690	1.174	1.941	0.893	0.125	1281.	0.962	749.	0.563	627.	0.471	682.	0.512
0.120	5.794	2.665	1.170	1.951	0.897	0.121	1282.	0.962	751.	0.564	628.	0.471	682.	0.512
0.118	5.739	2.641	1.168	1.958	0.901	0.119	1282.	0.963	752.	0.564	629.	0.472	683.	0.513
0.114	5.681	2.613	1.164	1.974	0.908	0.115	1282.	0.963	753.	0.565	629.	0.472	684.	0.513
0.110	5.611	2.581	1.160	1.987	0.914	0.111	1282.	0.963	754.	0.566	630.	0.473	684.	0.514
0.107	5.546	2.551	1.157	2.003	0.921	0.108	1282.	0.963	756.	0.567	631.	0.473	685.	0.514
0.102	5.482	2.520	1.152	2.019	0.928	0.103	1283.	0.963	757.	0.568	632.	0.474	685.	0.514
0.098	5.410	2.486	1.148	2.035	0.935	0.099	1282.	0.963	758.	0.569	632.	0.475	686.	0.515
0.094	5.334	2.452	1.144	2.055	0.945	0.095	1283.	0.963	759.	0.570	633.	0.475	686.	0.515
0.089	5.252	2.414	1.139	2.075	0.954	0.090	1283.	0.963	760.	0.571	634.	0.476	687.	0.516
0.085	5.165	2.373	1.135	2.095	0.963	0.086	1282.	0.963	761.	0.572	634.	0.476	687.	0.516
0.082	5.075	2.331	1.132	2.119	0.973	0.083	1282.	0.962	762.	0.572	635.	0.477	688.	0.516
0.077	4.976	2.286	1.127	2.154	0.990	0.078	1281.	0.961	764.	0.573	636.	0.477	688.	0.517
0.074	4.884	2.242	1.124	2.205	1.013	0.075	1280.	0.961	765.	0.574	637.	0.478	689.	0.517
0.070	4.776	2.194	1.120	2.281	1.048	0.071	1279.	0.960	766.	0.575	637.	0.478	690.	0.518
0.066	4.659	2.139	1.116	2.409	1.106	0.067	1279.	0.960	767.	0.576	638.	0.479	690.	0.518
0.063	4.515	2.074	1.113	2.546	1.169	0.064	1277.	0.959	768.	0.577	639.	0.479	691.	0.519
0.058	4.352	1.998	1.108	2.860	1.313	0.059	1275.	0.957	769.	0.577	639.	0.480	691.	0.519
0.055	4.165	1.912	1.105	3.112	1.429	0.056	1272.	0.955	770.	0.578	640.	0.480	692.	0.519
0.051	3.959	1.818	1.101	3.385	1.554	0.052	1268.	0.952	771.	0.579	641.	0.481	692.	0.520
0.047	3.734	1.714	1.097	3.641	1.672	0.048	1261.	0.946	772.	0.579	641.	0.481	693.	0.520
0.044	3.502	1.607	1.094	3.892	1.786	0.045	1251.	0.939	773.	0.580	642.	0.482	693.	0.520
0.040	3.248	1.491	1.090	4.185	1.921	0.041	1236.	0.927	774.	0.581	643.	0.482	694.	0.521
0.036	2.971	1.364	1.086	4.529	2.078	0.037	1215.	0.911	775.	0.582	643.	0.483	695.	0.521
0.032	2.680	1.230	1.082	4.932	2.263	0.033	1187.	0.891	776.	0.582	644.	0.483	695.	0.521
0.028	2.399	1.101	1.078	5.325	2.443	0.029	1156.	0.867	777.	0.583	645.	0.484	696.	0.522
0.023	2.133	0.978	1.073	5.821	2.671	0.024	1119.	0.839	778.	0.584	645.	0.484	696.	0.522
0.019	1.900	0.872	1.069	6.262	2.873	0.020	1082.	0.812	779.	0.585	646.	0.485	697.	0.523
0.015	1.697	0.779	1.065	6.751	3.097	0.016	1040.	0.780	780.	0.585	647.	0.485	697.	0.523
0.009	1.528	0.701	1.059	7.225	3.316	0.010	987.	0.741	781.	0.586	647.	0.486	698.	0.524
0.008	1.385	0.635	1.058	7.361	3.377	0.009	917.	0.688	782.	0.587	648.	0.486	699.	0.524
0.007	1.167	0.535	1.057	7.351	3.372	0.008	915.	0.687	785.	0.589	650.	0.487	700.	0.525

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GROUP 58.	MODEL 139	MACH NO 7.95	PC (PSIA) 250.4	TC (DEG R) 1338.	ALPHA-MODEL 30.03	ALPHA-SECTOR -0.03	ALPHA-PREBEND 30.00	ROLL-MODEL 180.00	YAW 0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	G-INF (PSIA)	U-INF (FT/SEC)	KHO-INF (LBM/FT3)	ML-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.1	0.0267	2.167	1.182	3861.	0.735E-03	0.254E-05	0.112E 07.	22.58	0.0	1.00	22.58			
ZF1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/T0	TW1 (DEG R)	TW1/T0	TW2 (DEG R)	TW2/T0	TW3 (DEG R)	TW3/T0
1.326	7.446	3.405	2.376	1.941	0.888	1.327	1277.	0.954	537.	0.402	520.	0.389	557.	0.416
1.294	7.428	3.397	2.344	1.941	0.888	1.327	1277.	0.954	567.	0.424	534.	0.399	562.	0.420
1.258	7.379	3.376	2.308	1.941	0.888	1.295	1277.	0.953	570.	0.426	536.	0.400	563.	0.420
1.222	7.318	3.348	2.272	1.940	0.888	1.259	1277.	0.954	574.	0.429	537.	0.401	563.	0.421
1.186	7.265	3.325	2.236	1.939	0.888	1.223	1276.	0.953	577.	0.431	539.	0.402	564.	0.421
1.150	7.223	3.306	2.200	1.938	0.887	1.187	1276.	0.953	580.	0.434	540.	0.403	564.	0.421
1.113	7.175	3.285	2.163	1.936	0.886	1.151	1276.	0.953	584.	0.436	541.	0.404	565.	0.422
1.075	7.123	3.263	2.125	1.935	0.887	1.114	1276.	0.953	587.	0.438	542.	0.405	565.	0.422
1.037	7.076	3.241	2.087	1.937	0.887	1.076	1275.	0.953	590.	0.441	544.	0.406	566.	0.422
1.003	7.024	3.219	2.053	1.938	0.888	1.038	1275.	0.952	594.	0.443	545.	0.407	566.	0.423
0.969	6.973	3.197	2.019	1.937	0.887	1.004	1275.	0.952	597.	0.446	546.	0.408	567.	0.423
0.933	6.932	3.182	1.983	1.935	0.887	0.970	1275.	0.952	600.	0.448	548.	0.409	567.	0.424
0.897	6.901	3.167	1.947	1.935	0.887	0.934	1275.	0.952	603.	0.450	549.	0.410	568.	0.424
0.860	6.876	3.157	1.910	1.934	0.886	0.898	1274.	0.951	606.	0.453	550.	0.411	568.	0.424
0.823	6.861	3.151	1.873	1.933	0.886	0.861	1274.	0.951	609.	0.455	551.	0.412	569.	0.425
0.785	6.840	3.143	1.835	1.932	0.885	0.824	1273.	0.951	612.	0.457	552.	0.413	569.	0.425
0.749	6.814	3.134	1.799	1.931	0.884	0.786	1274.	0.951	615.	0.460	554.	0.414	570.	0.425
0.712	6.779	3.119	1.762	1.930	0.883	0.750	1273.	0.951	618.	0.462	555.	0.414	570.	0.426
0.675	6.744	3.104	1.725	1.929	0.882	0.713	1273.	0.951	621.	0.464	556.	0.415	571.	0.426
0.638	6.710	3.088	1.688	1.928	0.881	0.676	1273.	0.951	624.	0.466	557.	0.416	571.	0.427
0.601	6.690	3.079	1.651	1.927	0.880	0.639	1273.	0.950	627.	0.468	559.	0.417	572.	0.427
0.564	6.676	3.074	1.614	1.926	0.879	0.602	1273.	0.950	630.	0.470	560.	0.418	572.	0.427
0.527	6.662	3.067	1.577	1.925	0.878	0.565	1272.	0.950	633.	0.472	561.	0.419	573.	0.428
0.491	6.648	3.056	1.541	1.924	0.877	0.528	1273.	0.951	636.	0.474	562.	0.420	573.	0.428
0.453	6.636	3.032	1.503	1.923	0.876	0.492	1273.	0.951	639.	0.476	563.	0.420	574.	0.428
0.417	6.599	2.996	1.467	1.922	0.875	0.454	1274.	0.951	641.	0.478	564.	0.421	574.	0.429
0.379	6.406	2.949	1.429	1.921	0.874	0.418	1274.	0.952	643.	0.480	565.	0.422	575.	0.429
0.343	6.278	2.890	1.393	1.920	0.873	0.380	1275.	0.952	646.	0.482	566.	0.423	575.	0.429
			1.356	1.919	0.872	0.344	1276.	0.953	648.	0.484	567.	0.424	576.	0.430
			1.342	1.918	0.871	0.307	1277.	0.953	651.	0.486	569.	0.425	576.	0.430
			1.334	1.917	0.870	0.293	1277.	0.954	653.	0.488	570.	0.425	576.	0.430
0.281	5.863	2.697	1.331	1.916	0.869	0.285	1277.	0.954	656.	0.490	571.	0.426	577.	0.431
0.275	5.833	2.684	1.325	1.915	0.868	0.282	1277.	0.954	658.	0.491	572.	0.427	577.	0.431
0.270	5.805	2.672	1.320	1.914	0.867	0.276	1277.	0.954	660.	0.493	573.	0.428	578.	0.432
0.266	5.783	2.663	1.316	1.913	0.866	0.271	1277.	0.954	663.	0.495	574.	0.429	578.	0.432
0.263	5.760	2.652	1.313	1.912	0.865	0.267	1277.	0.954	665.	0.497	575.	0.429	579.	0.432
0.260	5.737	2.643	1.310	1.911	0.864	0.261	1277.	0.954	667.	0.498	576.	0.430	579.	0.433
0.257	5.716	2.635	1.307	1.910	0.863	0.258	1277.	0.954	670.	0.500	577.	0.431	580.	0.433
0.253	5.692	2.624	1.303	1.909	0.862	0.254	1277.	0.954	672.	0.502	578.	0.432	580.	0.433
0.248	5.669	2.614	1.298	1.908	0.861	0.249	1278.	0.954	674.	0.503	579.	0.432	581.	0.434
0.243	5.643	2.603	1.293	1.907	0.860	0.244	1278.	0.954	676.	0.505	580.	0.433	581.	0.434
									678.	0.507	581.	0.434	582.	0.434

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GROUP	MODEL	MACH NO	PC(PSIA)	TC(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
56.	139	7.95	248.3	1339.	30.04	-0.04	30.00	180.00	Q					
T-INF	P-INF	PO1	Q-INF	U-INF	RMU-INF	ML-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBN/FT3)	(LBN/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
58.2	0.0265	2.167	1.172	3863.	0.728E-03	0.254E-05	0.111E 07	22.58	0.0	1.00	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	Z12	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.238	5.614	2.590	1.288	7.384	3.407	0.239	1278.	0.954	680.	0.508	582.	0.435	582.	0.435
0.234	5.586	2.578	1.284	7.376	3.404	0.235	1278.	0.955	682.	0.510	583.	0.435	582.	0.435
0.230	5.556	2.565	1.280	7.367	3.402	0.231	1278.	0.954	685.	0.511	584.	0.436	583.	0.435
0.227	5.527	2.553	1.277	7.356	3.398	0.228	1278.	0.954	687.	0.512	585.	0.436	583.	0.435
0.222	5.499	2.541	1.272	7.353	3.398	0.223	1278.	0.954	689.	0.514	586.	0.437	584.	0.436
0.218	5.469	2.528	1.268	7.342	3.394	0.219	1278.	0.954	691.	0.515	587.	0.438	584.	0.436
0.213	5.438	2.514	1.263	7.324	3.386	0.214	1278.	0.954	692.	0.517	588.	0.438	585.	0.436
0.208	5.399	2.498	1.258	7.318	3.380	0.209	1278.	0.954	694.	0.518	589.	0.439	585.	0.437
0.202	5.354	2.478	1.252	7.296	3.377	0.203	1278.	0.954	696.	0.520	590.	0.440	586.	0.437
0.199	5.312	2.461	1.249	7.293	3.379	0.200	1279.	0.954	698.	0.521	590.	0.441	586.	0.437
0.195	5.271	2.442	1.245	7.283	3.374	0.196	1279.	0.955	700.	0.522	591.	0.441	587.	0.438
0.191	5.226	2.422	1.241	7.272	3.370	0.192	1279.	0.955	702.	0.524	592.	0.442	587.	0.438
0.186	5.185	2.405	1.236	7.260	3.367	0.187	1280.	0.955	704.	0.525	593.	0.443	588.	0.438
0.180	5.137	2.384	1.230	7.248	3.363	0.181	1279.	0.955	705.	0.526	594.	0.443	588.	0.439
0.175	5.081	2.358	1.225	7.233	3.358	0.176	1280.	0.955	707.	0.528	595.	0.444	588.	0.439
0.170	5.025	2.333	1.220	7.231	3.350	0.171	1280.	0.955	709.	0.529	596.	0.445	589.	0.439
0.166	4.966	2.306	1.216	7.221	3.353	0.167	1280.	0.955	711.	0.530	597.	0.445	589.	0.440
0.165	4.919	2.287	1.215	7.216	3.355	0.166	1279.	0.955	712.	0.532	598.	0.446	590.	0.440
0.161	4.884	2.269	1.211	7.212	3.351	0.162	1279.	0.954	714.	0.533	599.	0.447	590.	0.440
0.157	4.826	2.244	1.207	7.204	3.349	0.158	1279.	0.954	716.	0.534	600.	0.447	591.	0.441
0.153	4.781	2.214	1.203	7.193	3.345	0.154	1279.	0.954	717.	0.535	600.	0.448	591.	0.441
0.149	4.690	2.181	1.199	7.191	3.345	0.150	1278.	0.954	719.	0.537	601.	0.449	591.	0.441
0.145	4.617	2.148	1.195	7.184	3.343	0.146	1278.	0.954	721.	0.538	602.	0.449	592.	0.442
0.141	4.536	2.111	1.191	7.181	3.341	0.142	1277.	0.953	722.	0.539	603.	0.450	592.	0.442
0.135	4.440	2.067	1.185	7.170	3.338	0.136	1276.	0.952	724.	0.540	604.	0.451	593.	0.442
0.130	4.321	2.013	1.180	7.166	3.338	0.131	1273.	0.950	725.	0.541	605.	0.451	593.	0.443
0.124	4.180	1.947	1.174	7.155	3.333	0.125	1270.	0.947	727.	0.542	606.	0.452	594.	0.443
0.119	4.030	1.878	1.169	7.151	3.333	0.120	1266.	0.944	728.	0.544	606.	0.452	594.	0.443
0.115	3.850	1.814	1.165	7.142	3.330	0.116	1262.	0.942	730.	0.545	607.	0.453	594.	0.444
0.112	3.746	1.748	1.162	7.136	3.330	0.113	1255.	0.937	731.	0.546	608.	0.454	595.	0.444
0.108	3.607	1.683	1.158	7.134	3.329	0.109	1249.	0.932	733.	0.547	609.	0.454	595.	0.444
0.103	3.450	1.610	1.153	7.131	3.328	0.104	1237.	0.923	734.	0.548	610.	0.455	596.	0.445
0.099	3.288	1.533	1.149	7.133	3.326	0.100	1229.	0.917	736.	0.549	611.	0.456	596.	0.445
0.096	3.135	1.461	1.146	7.135	3.325	0.097	1216.	0.908	737.	0.550	611.	0.456	596.	0.445
0.092	2.976	1.386	1.142	7.136	3.323	0.093	1202.	0.897	739.	0.551	612.	0.457	597.	0.445
0.088	2.817	1.311	1.138	7.140	3.324	0.089	1188.	0.887	740.	0.552	613.	0.457	597.	0.446
0.085	2.660	1.237	1.135	7.141	3.320	0.086	1168.	0.872	741.	0.553	614.	0.458	598.	0.446
0.081	2.503	1.163	1.131	7.140	3.317	0.082	1149.	0.858	743.	0.554	614.	0.459	598.	0.446
0.076	2.351	1.091	1.126	7.141	3.315	0.077	1127.	0.841	744.	0.555	615.	0.459	599.	0.447
0.072	2.190	1.016	1.122	7.138	3.312	0.073	1102.	0.822	745.	0.556	616.	0.460	599.	0.447
0.068	2.046	0.949	1.118	7.141	3.312	0.069	1085.	0.810	747.	0.557	617.	0.461	599.	0.447
0.064	1.918	0.889	1.114	7.138	3.309	0.065	1064.	0.794	748.	0.558	618.	0.461	600.	0.448

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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG K)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
56.	139	7.95	247.3	1340.	30.04	-0.04	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	PO1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RHO-INF (LBM/FT3)	ML-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
98.2	0.0264	2.159	1.167	3864.	0.724E-03	0.254E-05	0.110E 07	22.58	0.0	1.00	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PO1	ZP2 (IN)	PP2 (PSIA)	PP2/PO1	ZT2 (IN)	TT2 (DEG R)	TT2/TC	TW1 (DEG K)	TW1/TC	TW2 (DEG R)	TW2/TC	TW3 (DEG R)	TW3/TC
0.058	1.789	0.829	1.108	7.139	3.307	0.059	1034.	0.772	749.	0.559	619.	0.462	600.	0.448
0.054	1.666	0.772	1.104	7.137	3.306	0.055	1009.	0.753	751.	0.560	619.	0.462	601.	0.448
0.048	1.546	0.715	1.096	7.136	3.303	0.049	978.	0.730	752.	0.561	620.	0.463	601.	0.449
0.043	1.430	0.662	1.093	7.131	3.299	0.044	950.	0.709	753.	0.562	621.	0.463	601.	0.449
0.038	1.323	0.612	1.088	7.127	3.296	0.039	922.	0.688	755.	0.563	622.	0.464	602.	0.449
0.032	1.224	0.566	1.082	7.116	3.292	0.033	891.	0.665	756.	0.564	622.	0.464	602.	0.449
0.026	1.132	0.524	1.076	7.119	3.292	0.027	861.	0.642	757.	0.565	623.	0.465	603.	0.450
0.021	1.052	0.486	1.071	7.105	3.285	0.022	836.	0.624	758.	0.566	624.	0.466	603.	0.450
0.016	0.978	0.452	1.066	7.098	3.283	0.017	811.	0.605	759.	0.567	625.	0.466	603.	0.450
0.011	0.912	0.422	1.061	7.086	3.278	0.012	789.	0.589	761.	0.568	626.	0.467	604.	0.451
0.006	0.861	0.398	1.056	7.085	3.278	0.007	759.	0.567	762.	0.569	626.	0.467	604.	0.451
0.007	0.791	0.366	1.057	7.077	3.276	0.008	745.	0.556	764.	0.570	628.	0.468	605.	0.451

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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
59	139	7.95	252.6	1940.	30.02	-0.02	30.00	180.00	0					
T-INF	P-INF	POI	U-INF	U-INF	WAO-INF	PL-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.2	0.0270	2.206	1.192	3864.	0.740E-03	0.254E-05	0.112E 07	18.06	0.0	0.80	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PO1	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
1.298	7.437	3.371	2.352	1.964	0.890	1.303	1272.	0.949	561.	0.419	541.	0.404	556.	0.415
1.265	7.441	3.375	2.315	1.966	0.891	1.266	1272.	0.949	594.	0.444	556.	0.415	562.	0.419
1.230	7.451	3.379	2.280	1.964	0.891	1.231	1272.	0.949	598.	0.446	558.	0.416	562.	0.420
1.196	7.454	3.380	2.246	1.963	0.890	1.197	1271.	0.949	601.	0.449	559.	0.417	563.	0.420
1.161	7.464	3.394	2.211	1.964	0.891	1.162	1272.	0.949	605.	0.451	560.	0.418	564.	0.421
1.126	7.526	3.413	2.176	1.962	0.890	1.127	1272.	0.949	608.	0.454	562.	0.419	564.	0.421
1.091	7.559	3.431	2.141	1.961	0.890	1.092	1272.	0.949	611.	0.456	563.	0.420	564.	0.421
1.053	7.585	3.444	2.103	1.964	0.892	1.054	1271.	0.949	614.	0.458	564.	0.421	564.	0.421
1.018	7.591	3.447	2.068	1.961	0.890	1.019	1271.	0.949	618.	0.461	565.	0.422	564.	0.421
0.983	7.594	3.448	2.033	1.961	0.890	0.984	1271.	0.949	621.	0.463	567.	0.423	565.	0.422
0.950	7.598	3.451	2.000	1.962	0.891	0.951	1271.	0.949	624.	0.466	568.	0.424	567.	0.423
0.915	7.599	3.453	1.965	1.959	0.890	0.916	1271.	0.949	627.	0.468	569.	0.425	568.	0.424
0.881	7.609	3.458	1.931	1.960	0.891	0.882	1272.	0.949	630.	0.470	570.	0.426	569.	0.424
0.845	7.629	3.468	1.895	1.958	0.890	0.846	1271.	0.949	633.	0.472	571.	0.426	569.	0.425
0.809	7.666	3.488	1.859	1.959	0.891	0.810	1271.	0.948	636.	0.475	573.	0.427	571.	0.426
0.774	7.709	3.509	1.824	1.956	0.890	0.775	1270.	0.948	639.	0.477	574.	0.428	571.	0.426
0.738	7.753	3.530	1.788	1.956	0.891	0.739	1271.	0.948	642.	0.479	575.	0.429	572.	0.427
0.702	7.789	3.560	1.752	1.955	0.891	0.703	1270.	0.948	645.	0.481	576.	0.430	573.	0.428
0.666	7.806	3.557	1.716	1.954	0.890	0.667	1270.	0.948	647.	0.483	577.	0.431	574.	0.428
0.631	7.811	3.562	1.681	1.953	0.891	0.632	1271.	0.948	650.	0.485	578.	0.432	574.	0.429
0.595	7.813	3.563	1.645	1.951	0.890	0.596	1270.	0.948	653.	0.487	579.	0.432	575.	0.429
0.559	7.829	3.572	1.609	1.954	0.891	0.560	1271.	0.948	656.	0.489	580.	0.433	575.	0.429
0.523	7.867	3.589	1.573	1.954	0.891	0.524	1270.	0.948	658.	0.491	581.	0.434	576.	0.430
0.487	7.927	3.618	1.537	1.952	0.891	0.488	1270.	0.948	661.	0.493	583.	0.435	576.	0.430
0.452	8.003	3.657	1.502	1.952	0.892	0.453	1270.	0.948	663.	0.495	584.	0.436	576.	0.430
0.416	8.059	3.683	1.466	2.045	0.935	0.417	1270.	0.946	666.	0.497	585.	0.436	576.	0.430
0.381	8.058	3.684	1.431	2.597	1.187	0.382	1271.	0.949	668.	0.499	586.	0.437	576.	0.430
0.345	7.996	3.658	1.395	5.223	2.389	0.346	1272.	0.949	671.	0.501	587.	0.438	576.	0.430
0.324	7.849	3.615	1.374	7.132	3.264	0.325	1272.	0.949	673.	0.502	588.	0.439	577.	0.430
0.315	7.840	3.590	1.365	7.400	3.388	0.316	1273.	0.950	676.	0.504	589.	0.439	578.	0.431
0.305	7.786	3.566	1.355	7.392	3.386	0.306	1273.	0.950	677.	0.506	590.	0.440	578.	0.432
0.295	7.735	3.546	1.345	7.380	3.383	0.296	1273.	0.950	680.	0.508	591.	0.441	579.	0.432
0.285	7.679	3.522	1.335	7.381	3.385	0.286	1273.	0.950	682.	0.509	592.	0.441	579.	0.432
0.276	7.620	3.496	1.326	7.383	3.387	0.277	1274.	0.950	685.	0.511	593.	0.442	580.	0.433
0.270	7.569	3.474	1.320	7.378	3.386	0.271	1274.	0.950	687.	0.513	594.	0.443	581.	0.433
0.264	7.529	3.457	1.314	7.380	3.388	0.265	1274.	0.950	689.	0.514	594.	0.444	581.	0.434
0.259	7.452	3.440	1.309	7.374	3.386	0.260	1274.	0.951	691.	0.516	596.	0.445	582.	0.435
0.254	7.458	3.428	1.304	7.374	3.390	0.255	1274.	0.951	693.	0.517	596.	0.445	582.	0.435
0.250	7.421	3.411	1.300	7.377	3.391	0.251	1274.	0.951	695.	0.519	597.	0.446	583.	0.435
0.244	7.384	3.396	1.294	7.372	3.390	0.245	1274.	0.951	697.	0.520	598.	0.446	584.	0.435
0.240	7.349	3.382	1.290	7.371	3.392	0.241	1274.	0.951	699.	0.522	599.	0.447	584.	0.436
									701.	0.523	600.	0.448	585.	0.436

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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
55.	139	7.95	248.8	1340.	30.02	-0.02	30.00	180.00	0					
T-INF	P-INF	POI	Q-INF	U-INF	RMO-INF	MC-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
58.2	0.0265	2.172	1.174	3864.	0.729E-03	0.254E-05	0.111E 07	18.06	0.0	0.80	22.58			
ZP1	PP1	PP1/PO1	ZP2	PP2	PP2/PC1	ZT2	TT2	TT2/TO	TW1	TW1/TO	TW2	TW2/TO	TW3	TW3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.235	7.312	3.367	1.285	7.366	3.391	0.236	1275.	0.951	703.	0.525	601.	0.449	585.	0.437
0.229	7.273	3.351	1.279	7.368	3.395	0.230	1274.	0.951	705.	0.526	602.	0.449	586.	0.437
0.222	7.233	3.333	1.272	7.365	3.394	0.223	1275.	0.951	707.	0.528	603.	0.450	587.	0.438
0.216	7.191	3.315	1.266	7.364	3.395	0.217	1275.	0.951	709.	0.529	604.	0.451	587.	0.438
0.209	7.137	3.293	1.259	7.365	3.398	0.210	1275.	0.952	711.	0.531	605.	0.451	588.	0.439
0.203	7.089	3.272	1.253	7.354	3.395	0.204	1276.	0.952	713.	0.532	606.	0.452	589.	0.439
0.200	7.048	3.256	1.250	7.362	3.401	0.201	1276.	0.952	715.	0.533	607.	0.453	589.	0.440
0.195	7.010	3.238	1.245	7.354	3.397	0.196	1276.	0.952	716.	0.535	607.	0.453	590.	0.440
0.189	6.965	3.220	1.239	7.359	3.402	0.190	1276.	0.952	718.	0.536	608.	0.454	591.	0.441
0.184	6.919	3.199	1.234	7.351	3.399	0.185	1276.	0.952	720.	0.537	609.	0.455	592.	0.441
0.178	6.875	3.180	1.228	7.351	3.400	0.179	1277.	0.953	722.	0.538	610.	0.455	592.	0.442
0.172	6.825	3.160	1.222	7.342	3.400	0.173	1277.	0.953	723.	0.540	611.	0.456	593.	0.442
0.167	6.776	3.138	1.217	7.337	3.398	0.168	1277.	0.953	725.	0.541	612.	0.457	594.	0.443
0.162	6.729	3.118	1.212	7.339	3.401	0.163	1278.	0.954	727.	0.542	613.	0.457	594.	0.443
0.156	6.674	3.095	1.206	7.328	3.399	0.157	1278.	0.954	728.	0.543	613.	0.458	595.	0.444
0.152	6.623	3.072	1.202	7.332	3.401	0.153	1279.	0.954	730.	0.545	614.	0.458	596.	0.444
0.148	6.571	3.050	1.198	7.329	3.402	0.149	1279.	0.955	731.	0.546	615.	0.459	596.	0.445
0.144	6.516	3.023	1.194	7.333	3.403	0.145	1279.	0.955	733.	0.547	616.	0.460	597.	0.446
0.139	6.454	2.997	1.189	7.322	3.400	0.140	1280.	0.955	734.	0.548	617.	0.460	598.	0.446
0.134	6.392	2.969	1.184	7.331	3.406	0.135	1281.	0.956	736.	0.549	618.	0.461	598.	0.447
0.124	6.303	2.929	1.174	7.336	3.410	0.125	1281.	0.956	738.	0.550	618.	0.461	599.	0.447
0.119	6.192	2.880	1.169	7.338	3.413	0.120	1281.	0.956	739.	0.551	619.	0.462	600.	0.448
0.115	6.103	2.838	1.165	7.338	3.413	0.116	1282.	0.957	740.	0.553	620.	0.463	601.	0.449
0.110	6.007	2.797	1.160	7.338	3.417	0.111	1282.	0.957	742.	0.554	621.	0.463	602.	0.449
0.105	5.900	2.748	1.155	7.341	3.420	0.106	1282.	0.957	743.	0.555	622.	0.464	603.	0.450
0.101	5.795	2.702	1.151	7.342	3.423	0.102	1281.	0.956	745.	0.556	622.	0.464	604.	0.451
0.096	5.664	2.642	1.146	7.349	3.428	0.097	1281.	0.957	746.	0.557	623.	0.465	605.	0.452
0.091	5.520	2.574	1.141	7.354	3.429	0.092	1280.	0.956	748.	0.558	624.	0.466	607.	0.453
0.086	5.353	2.499	1.136	7.358	3.435	0.087	1279.	0.956	749.	0.559	625.	0.467	609.	0.454
0.081	5.165	2.411	1.131	7.359	3.435	0.082	1277.	0.954	750.	0.560	626.	0.467	610.	0.456
0.076	4.974	2.323	1.126	7.357	3.436	0.077	1274.	0.952	752.	0.561	626.	0.468	612.	0.457
0.072	4.780	2.233	1.122	7.355	3.437	0.073	1270.	0.949	753.	0.562	627.	0.468	614.	0.458
0.069	4.579	2.140	1.119	7.353	3.437	0.070	1267.	0.946	754.	0.563	628.	0.469	615.	0.459
0.066	4.377	2.047	1.116	7.355	3.439	0.067	1262.	0.942	756.	0.564	629.	0.469	616.	0.460
0.063	4.152	1.943	1.113	7.354	3.442	0.064	1255.	0.937	757.	0.565	630.	0.470	618.	0.462
0.060	3.922	1.840	1.110	7.354	3.442	0.061	1247.	0.931	758.	0.566	630.	0.471	620.	0.463
0.057	3.704	1.734	1.107	7.352	3.442	0.058	1236.	0.923	759.	0.567	631.	0.471	621.	0.464
0.054	3.454	1.618	1.104	7.359	3.447	0.055	1221.	0.912	761.	0.568	632.	0.472	622.	0.465
0.050	3.196	1.498	1.100	7.352	3.446	0.051	1206.	0.901	762.	0.569	633.	0.472	623.	0.466
0.046	2.969	1.392	1.096	7.351	3.447	0.047	1184.	0.884	763.	0.570	633.	0.473	625.	0.467
0.043	2.733	1.282	1.093	7.354	3.449	0.044	1162.	0.868	764.	0.571	634.	0.473	626.	0.467
0.039	2.493	1.169	1.089	7.362	3.453	0.040	1133.	0.846	766.	0.572	635.	0.474	627.	0.468

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GROUP	MODEL	PACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
59.	139	7:95	244.4	1338.	30.02	-0.02	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	RHO-INF	PC-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBH/FT <sup>3</sup> )	(LBH/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
98.1	0.0261	2.133	1.153	3881.	0.717E-03	0.254E-05	0.109E 07	18.06	0.0	0.80	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	Z12	T12	T12/TC	TW1	TW1/TC	TW2	TW2/TC	TW3	TW3/TC
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.036	2.260	1.059	1.086	7.365	3.452	0.037	1103.	0.824	767.	0.573	635.	0.475	628.	0.469
0.032	2.046	0.958	1.082	7.387	3.458	0.033	1075.	0.804	768.	0.574	636.	0.476	629.	0.470
0.029	1.858	0.868	1.079	7.398	3.458	0.030	1048.	0.783	769.	0.575	637.	0.476	630.	0.471
0.026	1.695	0.790	1.076	7.425	3.460	0.027	1021.	0.763	770.	0.576	638.	0.477	631.	0.472
0.021	1.552	0.721	1.071	7.454	3.464	0.022	986.	0.737	771.	0.577	638.	0.477	632.	0.472
0.018	1.424	0.659	1.068	7.482	3.464	0.019	955.	0.714	773.	0.577	639.	0.478	633.	0.473
0.014	1.317	0.608	1.064	7.509	3.466	0.015	924.	0.691	774.	0.578	640.	0.478	634.	0.474
0.010	1.225	0.564	1.060	7.519	3.463	0.011	898.	0.671	775.	0.579	640.	0.479	635.	0.474
0.006	1.146	0.527	1.056	7.526	3.462	0.007	848.	0.634	776.	0.580	641.	0.479	636.	0.475
0.007	0.947	0.434	1.057	7.540	3.461	0.008	852.	0.637	781.	0.583	645.	0.482	641.	0.479



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GROUP 60.	MODEL 139	PACH NO 7.95	PG(PSIA) 252.6	TC(DEG R) 1334.	ALPHA-MODEL 30.02	ALPHA-SECTOR -0.02	ALPHA-PREBEND 30.00	ROLL-MODEL 180.00	YAW 0					
T-INF (DEG R)	P-INF (PSIA)	PU1 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	RMU-INF (LBM/FT3)	MU-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
97.8	0.0270	2.206	1.192	3855.	0.743E-03	0.253E-05	0.113E 07	15.81	0.0	0.70	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PU1	ZP2 (IN)	PP2 (PSIA)	PP2/PC1	ZTC (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
			2.371	1.956	0.887	1.322	1262.	0.946	554.	0.415	542.	0.406	555.	0.416
			2.354	1.957	0.887	1.305	1261.	0.946	557.	0.418	544.	0.408	555.	0.416
			2.322	1.956	0.887	1.273	1260.	0.944	561.	0.420	545.	0.409	555.	0.416
1.240	3.742	1.697	2.250	1.957	0.887	1.241	1265.	0.949	564.	0.423	547.	0.410	556.	0.417
1.234	7.346	3.341	2.284	1.950	0.887	1.235	1263.	0.947	602.	0.451	562.	0.422	564.	0.423
1.201	7.395	3.366	2.251	1.948	0.887	1.202	1263.	0.946	606.	0.454	564.	0.423	565.	0.424
1.168	7.427	3.382	2.218	1.947	0.887	1.169	1263.	0.947	609.	0.456	565.	0.424	566.	0.425
1.135	7.455	3.397	2.185	1.946	0.887	1.136	1263.	0.947	612.	0.459	566.	0.424	567.	0.425
1.100	7.485	3.414	2.150	1.945	0.887	1.101	1263.	0.947	615.	0.461	567.	0.425	568.	0.426
1.064	7.498	3.421	2.114	1.943	0.887	1.065	1263.	0.947	618.	0.464	569.	0.426	570.	0.427
1.030	7.506	3.424	2.080	1.947	0.888	1.031	1263.	0.948	622.	0.466	570.	0.427	571.	0.428
0.997	7.507	3.428	2.047	1.942	0.887	0.998	1263.	0.947	625.	0.469	571.	0.428	573.	0.430
0.965	7.529	3.439	2.015	1.943	0.888	0.966	1263.	0.948	628.	0.471	572.	0.429	574.	0.431
0.931	7.563	3.458	1.981	1.940	0.887	0.932	1262.	0.947	631.	0.473	573.	0.430	577.	0.433
0.898	7.615	3.484	1.948	1.938	0.887	0.899	1263.	0.947	634.	0.475	574.	0.431	579.	0.434
0.864	7.669	3.510	1.914	1.941	0.888	0.865	1262.	0.947	637.	0.478	575.	0.432	581.	0.436
0.829	7.705	3.528	1.879	1.935	0.886	0.830	1262.	0.947	639.	0.480	577.	0.432	583.	0.437
0.795	7.744	3.548	1.845	1.937	0.888	0.796	1262.	0.948	642.	0.482	578.	0.434	585.	0.439
0.762	7.769	3.561	1.812	1.934	0.887	0.763	1262.	0.947	645.	0.484	579.	0.435	586.	0.440
0.728	7.777	3.568	1.778	1.933	0.887	0.729	1262.	0.948	648.	0.486	580.	0.435	588.	0.441
0.691	7.771	3.568	1.741	1.930	0.886	0.692	1262.	0.947	650.	0.488	581.	0.436	590.	0.443
0.657	7.773	3.572	1.707	1.931	0.888	0.658	1262.	0.948	653.	0.490	582.	0.437	593.	0.445
0.625	7.780	3.576	1.675	1.930	0.887	0.626	1262.	0.947	656.	0.492	583.	0.438	597.	0.448
0.591	7.758	3.586	1.641	1.929	0.887	0.592	1261.	0.947	658.	0.494	584.	0.439	600.	0.451
0.557	7.849	3.612	1.607	1.928	0.888	0.558	1262.	0.947	661.	0.496	585.	0.439	603.	0.453
0.523	7.917	3.645	1.573	1.926	0.887	0.524	1261.	0.947	663.	0.498	586.	0.440	606.	0.455
0.490	7.961	3.667	1.540	1.927	0.888	0.491	1261.	0.947	666.	0.500	587.	0.441	608.	0.457
0.456	7.977	3.677	1.506	1.925	0.888	0.457	1261.	0.947	668.	0.502	588.	0.442	611.	0.458
0.421	7.951	3.668	1.471	1.923	0.887	0.422	1262.	0.947	671.	0.503	589.	0.442	612.	0.459
0.387	7.809	3.633	1.437	1.925	0.889	0.388	1262.	0.947	673.	0.505	590.	0.443	613.	0.460
0.354	7.753	3.581	1.404	1.924	0.889	0.355	1263.	0.948	675.	0.507	591.	0.444	615.	0.462
			1.373	1.924	0.889	0.324	1263.	0.948	678.	0.509	592.	0.444	617.	0.463
			1.364	1.920	0.888	0.315	1263.	0.948	680.	0.510	593.	0.445	618.	0.464
			1.355	1.921	0.889	0.306	1264.	0.949	682.	0.512	594.	0.446	620.	0.466
0.302	7.387	3.419	1.352	1.920	0.889	0.303	1263.	0.948	684.	0.514	595.	0.447	622.	0.467
0.299	7.356	3.408	1.349	1.919	0.889	0.300	1264.	0.949	686.	0.515	596.	0.447	623.	0.468
0.243	7.328	3.396	1.343	1.920	0.890	0.294	1264.	0.949	688.	0.517	597.	0.448	625.	0.469
0.220	7.256	3.364	1.340	1.919	0.890	0.291	1264.	0.949	691.	0.518	598.	0.449	627.	0.470
0.285	7.267	3.372	1.335	1.924	0.893	0.286	1264.	0.949	693.	0.520	599.	0.449	628.	0.472
0.262	7.239	3.360	1.332	1.930	0.896	0.283	1263.	0.949	695.	0.522	600.	0.450	630.	0.473
0.277	7.206	3.348	1.327	1.938	0.901	0.278	1264.	0.949	697.	0.523	600.	0.451	631.	0.474
0.274	7.176	3.335	1.324	1.947	0.905	0.275	1263.	0.949	699.	0.524	601.	0.451	633.	0.475

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GROUP		MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	FOLL-MODEL	YAW				
60.		139	7.95	246.4	1332.	30.03	-0.03	30.00	180.00	0				
T-INF	P-INF	P01	Q-INF	U-INF	HMC-INF	MC-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FI/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.7	0.6263	2.151	1.163	3852.	0.726E-03	0.253E-05	0.111E 07	15.81	0.0	0.70	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/T0	TW1	TW1/T0	TW2	TW2/T0	TW3	TW3/T0
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG R)		(DEG R)		(DEG R)		(DEG R)	
0.271	7.149	3.324	1.321	1.957	0.910	0.272	1263.	0.949	701.	0.526	602.	0.452	635.	0.476
0.267	7.124	3.316	1.317	1.969	0.917	0.268	1264.	0.949	702.	0.527	603.	0.453	636.	0.478
0.264	7.103	3.306	1.314	1.989	0.925	0.265	1264.	0.949	704.	0.529	604.	0.453	638.	0.479
0.261	7.075	3.296	1.311	1.996	0.930	0.262	1264.	0.949	706.	0.530	605.	0.454	640.	0.480
0.258	7.055	3.288	1.308	2.007	0.935	0.259	1264.	0.949	708.	0.532	606.	0.455	641.	0.481
0.255	7.034	3.281	1.305	2.021	0.942	0.256	1264.	0.949	710.	0.533	607.	0.455	643.	0.483
0.251	7.008	3.271	1.301	2.035	0.950	0.252	1264.	0.949	712.	0.534	607.	0.456	644.	0.484
0.248	6.988	3.265	1.298	2.057	0.961	0.249	1264.	0.949	713.	0.536	608.	0.457	646.	0.485
0.245	6.969	3.253	1.295	2.075	0.970	0.246	1264.	0.949	715.	0.537	609.	0.457	648.	0.486
0.241	6.932	3.241	1.291	2.096	0.980	0.242	1264.	0.950	717.	0.539	610.	0.458	649.	0.488
0.238	6.905	3.231	1.288	2.125	0.994	0.239	1264.	0.950	719.	0.540	611.	0.459	651.	0.489
0.234	6.881	3.221	1.284	2.160	1.011	0.235	1264.	0.950	720.	0.541	612.	0.460	652.	0.490
0.231	6.859	3.214	1.281	2.213	1.037	0.232	1264.	0.950	722.	0.542	613.	0.460	653.	0.491
0.229	6.834	3.205	1.279	2.285	1.071	0.230	1265.	0.950	724.	0.544	613.	0.461	655.	0.492
0.225	6.815	3.196	1.275	2.368	1.110	0.226	1265.	0.950	725.	0.545	614.	0.461	656.	0.493
0.221	6.793	3.188	1.271	2.454	1.170	0.222	1264.	0.950	727.	0.546	615.	0.462	657.	0.494
0.218	6.770	3.180	1.268	2.544	1.242	0.219	1265.	0.950	728.	0.547	616.	0.463	659.	0.495
0.214	6.742	3.168	1.264	2.610	1.367	0.215	1265.	0.950	730.	0.548	617.	0.463	660.	0.496
0.211	6.716	3.158	1.261	3.190	1.500	0.212	1265.	0.950	731.	0.550	617.	0.464	661.	0.497
0.207	6.685	3.146	1.257	3.466	1.631	0.208	1265.	0.950	733.	0.551	618.	0.465	662.	0.498
0.203	6.657	3.135	1.253	3.772	1.776	0.204	1265.	0.950	734.	0.552	619.	0.465	664.	0.499
0.198	6.623	3.120	1.248	4.105	1.934	0.199	1265.	0.951	736.	0.553	620.	0.466	665.	0.500
0.193	6.583	3.102	1.243	4.522	2.131	0.194	1266.	0.951	737.	0.554	621.	0.466	666.	0.501
0.190	6.548	3.088	1.240	4.796	2.262	0.191	1265.	0.951	739.	0.555	621.	0.467	668.	0.502
0.186	6.515	3.071	1.236	5.288	2.493	0.187	1266.	0.951	740.	0.556	622.	0.468	669.	0.503
0.180	6.485	3.054	1.230	5.800	2.732	0.181	1266.	0.952	742.	0.558	623.	0.468	670.	0.504
0.176	6.453	3.036	1.226	6.291	2.959	0.177	1266.	0.952	743.	0.559	624.	0.469	671.	0.505
0.170	6.430	3.020	1.220	6.790	3.189	0.171	1267.	0.953	745.	0.560	624.	0.470	673.	0.506
0.166	6.404	3.004	1.216	7.053	3.325	0.167	1267.	0.953	746.	0.561	625.	0.470	674.	0.507
0.162	6.380	2.985	1.212	7.260	3.396	0.163	1268.	0.953	747.	0.562	626.	0.471	675.	0.508
0.158	6.350	2.967	1.208	7.335	3.424	0.159	1268.	0.954	749.	0.563	627.	0.471	677.	0.509
0.154	6.334	2.949	1.204	7.340	3.417	0.155	1269.	0.954	750.	0.564	628.	0.472	678.	0.510
0.150	6.315	2.932	1.200	7.350	3.413	0.151	1269.	0.954	751.	0.565	628.	0.472	679.	0.511
0.147	6.291	2.914	1.197	7.366	3.412	0.148	1269.	0.954	753.	0.566	629.	0.473	681.	0.512
0.142	6.267	2.899	1.192	7.372	3.410	0.143	1270.	0.955	754.	0.567	630.	0.474	682.	0.513
0.138	6.233	2.879	1.188	7.374	3.406	0.139	1270.	0.955	755.	0.568	631.	0.474	683.	0.514
0.132	6.189	2.858	1.182	7.370	3.403	0.133	1270.	0.955	756.	0.569	631.	0.475	684.	0.515
0.127	6.136	2.833	1.177	7.384	3.405	0.128	1271.	0.956	758.	0.570	632.	0.475	686.	0.515
0.123	6.074	2.806	1.173	7.380	3.409	0.124	1271.	0.956	759.	0.571	633.	0.476	687.	0.516
0.119	6.010	2.777	1.169	7.381	3.411	0.120	1271.	0.956	760.	0.572	634.	0.476	688.	0.517
0.115	5.936	2.743	1.165	7.374	3.408	0.116	1272.	0.956	761.	0.572	634.	0.477	689.	0.518
0.112	5.863	2.711	1.162	7.375	3.410	0.113	1272.	0.957	763.	0.573	635.	0.477	691.	0.519

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GROUP	MODEL	MACH NO	PG(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
60.	139	7.95	247.6	1330.	30.03	-0.03	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	HQO-INF (LBM/FT3)	ML-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
97.5	0.0264	2.161	1.168	3850.	0.731E-03	0.252E-05	0.111E 07	15.81	0.0	0.70	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/P01	ZP2 (IN)	PP2 (PSIA)	PP2/P01	ZT2 (IN)	TT2 (DEG R)	TT2/TO	TW1 (DEG R)	TW1/TO	TW2 (DEG R)	TW2/TO	TW3 (DEG R)	TW3/TO
0.109	5.788	2.678	1.159	7.377	3.413	0.110	1272.	0.957	764.	0.574	636.	0.478	692.	0.520
0.105	5.713	2.643	1.155	7.375	3.412	0.106	1272.	0.957	765.	0.575	636.	0.479	693.	0.521
0.102	5.637	2.609	1.152	7.379	3.416	0.103	1272.	0.956	766.	0.576	637.	0.479	694.	0.522
0.098	5.556	2.573	1.148	7.374	3.415	0.099	1272.	0.956	767.	0.577	638.	0.480	695.	0.523
0.095	5.477	2.537	1.145	7.368	3.413	0.096	1272.	0.956	768.	0.578	639.	0.480	696.	0.524
0.091	5.400	2.502	1.141	7.367	3.414	0.092	1272.	0.956	770.	0.579	639.	0.481	698.	0.524
0.088	5.313	2.462	1.138	7.381	3.420	0.089	1271.	0.956	771.	0.579	640.	0.481	699.	0.525
0.083	5.233	2.411	1.133	7.380	3.420	0.084	1270.	0.955	772.	0.580	641.	0.482	700.	0.526
0.078	5.092	2.355	1.128	7.388	3.424	0.079	1269.	0.954	773.	0.581	641.	0.482	701.	0.527
0.073	4.941	2.289	1.123	7.391	3.424	0.074	1268.	0.953	774.	0.582	642.	0.483	702.	0.528
0.069	4.786	2.209	1.119	7.398	3.428	0.070	1266.	0.952	775.	0.583	643.	0.483	703.	0.529
0.065	4.586	2.124	1.115	7.407	3.431	0.066	1264.	0.950	776.	0.584	644.	0.484	704.	0.530
0.061	4.386	2.032	1.111	7.408	3.432	0.062	1260.	0.947	777.	0.584	644.	0.484	706.	0.531
0.057	4.172	1.932	1.107	7.410	3.431	0.058	1254.	0.943	778.	0.585	645.	0.485	707.	0.531
0.052	3.913	1.811	1.102	7.423	3.436	0.053	1244.	0.935	779.	0.586	646.	0.486	708.	0.532
0.049	3.643	1.686	1.099	7.423	3.436	0.050	1236.	0.929	780.	0.587	646.	0.486	709.	0.533
0.045	3.389	1.558	1.095	7.431	3.438	0.046	1220.	0.918	781.	0.588	647.	0.487	710.	0.534
0.039	3.060	1.415	1.089	7.437	3.440	0.040	1186.	0.894	782.	0.589	648.	0.487	711.	0.535
0.035	2.734	1.264	1.085	7.442	3.442	0.036	1158.	0.872	783.	0.589	648.	0.488	712.	0.536
0.030	2.435	1.126	1.080	7.443	3.441	0.031	1126.	0.847	784.	0.590	649.	0.488	713.	0.536
0.026	2.169	1.003	1.076	7.443	3.441	0.027	1095.	0.824	785.	0.591	650.	0.489	714.	0.537
0.023	1.937	0.896	1.073	7.448	3.443	0.024	1066.	0.802	786.	0.592	651.	0.490	715.	0.538
0.018	1.740	0.804	1.068	7.449	3.442	0.019	1028.	0.773	787.	0.592	651.	0.490	716.	0.539
0.013	1.566	0.723	1.063	7.450	3.443	0.014	985.	0.741	788.	0.593	652.	0.490	717.	0.540
0.009	1.416	0.655	1.059	7.445	3.441	0.010	946.	0.712	789.	0.594	652.	0.491	719.	0.541
0.007	1.296	0.599	1.057	7.454	3.446	0.008	873.	0.657	790.	0.595	653.	0.491	720.	0.542
0.007	1.103	0.510	1.057	7.454	3.445	0.008	904.	0.680	792.	0.596	655.	0.493	722.	0.543

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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG W)	ALPHA-PCOEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
61.	139	7.95	250.7	1323.	30.01	-0.01	30.00	180.00	0					
T-INF	P-INF	P01	Q-INF	U-INF	W00-INF	VC-INF	RE/FT	X	Y	X/L	L			
(DEG R)	(PSIA)	(PSIA)	(PSIA)	(FT/SEC)	(LBM/FT3)	(LBM/FT-SEC)	(FT-1)	(IN)	(IN)		(IN)			
97.0	0.0258	2.189	1.183	3839.	0.744E+03	0.251E-05	0.114E 07	20.32	0.0	0.90	22.58			
ZP1	PP1	PP1/P01	ZP2	PP2	PP2/P01	ZT2	TT2	TT2/TO	Tw1	Tw1/TO	Tw2	Tw2/TO	Tw3	Tw3/TO
(IN)	(PSIA)		(IN)	(PSIA)		(IN)	(DEG W)		(DEG R)		(DEG W)		(DEG R)	
1.303	7.460	3.406	2.355	1.942	0.887	1.306	1250.	0.945	565.	0.427	546.	0.413	571.	0.432
1.271	7.467	3.409	2.321	1.944	0.888	1.304	1251.	0.946	598.	0.452	561.	0.424	576.	0.436
1.237	7.426	3.418	2.287	1.945	0.888	1.272	1251.	0.947	601.	0.455	563.	0.426	577.	0.436
1.203	7.509	3.429	2.253	1.943	0.887	1.238	1251.	0.946	605.	0.457	564.	0.427	577.	0.437
1.169	7.535	3.442	2.219	1.946	0.889	1.204	1251.	0.946	608.	0.460	565.	0.428	578.	0.437
1.134	7.566	3.456	2.184	1.944	0.888	1.170	1251.	0.947	611.	0.462	567.	0.429	578.	0.437
1.100	7.610	3.476	2.150	1.942	0.887	1.135	1252.	0.947	615.	0.465	568.	0.430	579.	0.438
1.064	7.672	3.504	2.114	1.943	0.888	1.101	1251.	0.947	618.	0.468	569.	0.430	579.	0.438
1.029	7.736	3.534	2.079	1.943	0.888	1.065	1252.	0.947	621.	0.470	570.	0.431	580.	0.438
0.995	7.787	3.560	2.045	1.943	0.888	1.030	1251.	0.947	625.	0.473	572.	0.432	580.	0.439
0.962	7.824	3.578	2.012	1.944	0.889	0.996	1251.	0.947	628.	0.475	573.	0.433	580.	0.439
0.928	7.850	3.590	1.978	1.943	0.889	0.963	1252.	0.947	631.	0.477	574.	0.434	581.	0.439
0.895	7.870	3.601	1.945	1.942	0.888	0.929	1251.	0.946	634.	0.480	575.	0.435	581.	0.440
0.860	7.883	3.608	1.910	1.939	0.888	0.896	1252.	0.947	637.	0.482	576.	0.436	582.	0.440
0.825	7.903	3.617	1.875	1.939	0.888	0.861	1251.	0.946	640.	0.484	577.	0.437	582.	0.440
0.791	7.937	3.636	1.841	1.939	0.888	0.826	1251.	0.946	643.	0.487	579.	0.438	583.	0.441
0.756	7.980	3.657	1.806	1.939	0.889	0.792	1251.	0.946	646.	0.489	580.	0.439	583.	0.441
0.721	8.024	3.677	1.771	1.940	0.889	0.757	1250.	0.946	649.	0.491	581.	0.440	584.	0.441
0.687	8.043	3.688	1.737	1.937	0.889	0.722	1251.	0.946	652.	0.493	582.	0.440	584.	0.442
0.652	8.047	3.690	1.702	1.938	0.889	0.688	1250.	0.946	655.	0.495	583.	0.441	584.	0.442
0.617	8.052	3.687	1.667	1.938	0.889	0.653	1250.	0.946	658.	0.497	584.	0.442	585.	0.442
0.582	8.014	3.680	1.632	1.933	0.883	0.618	1250.	0.945	660.	0.499	585.	0.443	585.	0.443
0.546	8.005	3.679	1.596	1.932	0.883	0.583	1250.	0.945	663.	0.501	587.	0.444	586.	0.443
0.510	8.000	3.681	1.560	1.935	0.883	0.547	1250.	0.945	666.	0.503	587.	0.444	586.	0.443
0.475	8.009	3.685	1.525	1.938	0.883	0.511	1249.	0.945	668.	0.506	589.	0.446	586.	0.444
0.439	7.972	3.669	1.489	1.935	0.883	0.476	1249.	0.945	671.	0.508	590.	0.446	587.	0.444
0.404	7.875	3.628	1.454	1.932	0.883	0.440	1249.	0.946	673.	0.510	591.	0.447	588.	0.445
0.368	7.730	3.564	1.418	1.937	0.883	0.405	1250.	0.946	676.	0.511	592.	0.448	588.	0.445
0.333	7.531	3.473	1.383	1.938	0.883	0.369	1250.	0.946	678.	0.513	593.	0.449	589.	0.446
0.297	7.301	3.368	1.347	1.936	0.883	0.334	1251.	0.947	680.	0.515	594.	0.449	589.	0.446
0.255	6.851	3.165	1.305	1.935	0.883	0.298	1251.	0.949	683.	0.523	595.	0.456	590.	0.452
0.246	6.734	3.114	1.296	1.937	0.883	0.265	1252.	0.947	685.	0.519	596.	0.451	591.	0.447
0.237	6.644	3.076	1.287	1.940	0.883	0.247	1252.	0.948	687.	0.520	597.	0.452	591.	0.448
0.228	6.571	3.040	1.278	1.941	0.883	0.238	1252.	0.949	690.	0.522	598.	0.452	592.	0.448
0.219	6.488	3.004	1.269	1.941	0.883	0.229	1252.	0.949	692.	0.524	598.	0.453	592.	0.448
0.210	6.404	2.969	1.260	1.941	0.883	0.220	1252.	0.949	694.	0.526	599.	0.454	592.	0.449
0.205	6.334	2.938	1.255	1.942	0.883	0.211	1252.	0.949	696.	0.527	601.	0.455	592.	0.449
0.201	6.283	2.915	1.251	1.940	0.883	0.202	1253.	0.949	698.	0.529	601.	0.456	593.	0.449
0.198	6.236	2.895	1.248	1.940	0.883	0.199	1253.	0.949	702.	0.532	603.	0.457	593.	0.450
0.194	6.191	2.877	1.244	1.940	0.883	0.195	1253.	0.949	704.	0.534	604.	0.458	594.	0.450
									706.	0.535	605.	0.458	594.	0.450

ORIGINAL PAGE IS  
OF POOR QUALITY

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PROJECT NUMBER VA353-218A  
ARO, INC.  
ARNOLD AIR FORCE STATION, TENN.  
NASA/RI ORG SHUTTLE TEST  
PAGE = 2

GROUP	MODEL	MACH NO	PC(PSIA)	TC(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
61.	139	7.95	246.4	1320.	30.01	-0.01	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	POI (PSIA)	Q-INF (PSIA)	U-INF (FT/SEC)	WMC-INF (LBM/FT3)	VC-INF (LBM/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
96.8	0.0263	2.151	1.163	3835.	0.733E-03	0.251E-05	0.112E 07	20.32	0.0	0.90	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/POI	ZP2 (IN)	PP2 (PSIA)	PP2/POI	ZT2 (IN)	TT2 (DEG R)	TT2/TC	TW1 (DEG R)	TW1/TC	TW2 (DEG R)	TW2/TC	TW3 (DEG R)	TW3/TC
0.190	6.150	2.859	1.240	7.407	3.444	0.191	1253.	0.949	708.	0.536	606.	0.459	595.	0.451
0.185	6.101	2.838	1.235	7.405	3.444	0.186	1253.	0.949	710.	0.538	607.	0.460	595.	0.451
0.180	6.058	2.819	1.230	7.406	3.446	0.181	1253.	0.950	712.	0.539	608.	0.460	595.	0.451
0.177	6.008	2.798	1.227	7.405	3.448	0.178	1254.	0.950	714.	0.541	609.	0.461	596.	0.451
0.172	5.962	2.778	1.222	7.402	3.450	0.173	1254.	0.950	716.	0.542	609.	0.462	596.	0.452
0.169	5.910	2.755	1.219	7.403	3.451	0.170	1254.	0.950	717.	0.544	610.	0.462	597.	0.452
0.165	5.857	2.733	1.215	7.402	3.454	0.166	1254.	0.950	719.	0.545	611.	0.463	597.	0.453
0.162	5.804	2.710	1.212	7.400	3.454	0.163	1254.	0.950	721.	0.546	612.	0.464	598.	0.453
0.159	5.751	2.687	1.209	7.391	3.453	0.160	1254.	0.950	723.	0.548	613.	0.464	598.	0.453
0.155	5.696	2.664	1.205	7.395	3.459	0.156	1254.	0.950	724.	0.549	614.	0.465	599.	0.454
0.150	5.636	2.638	1.200	7.397	3.461	0.151	1255.	0.950	726.	0.550	615.	0.466	599.	0.454
0.145	5.573	2.608	1.195	7.387	3.457	0.146	1254.	0.950	728.	0.551	615.	0.466	600.	0.454
0.140	5.503	2.578	1.190	7.395	3.465	0.141	1255.	0.951	729.	0.553	616.	0.467	600.	0.455
0.136	5.424	2.542	1.186	7.391	3.464	0.137	1254.	0.950	731.	0.554	617.	0.467	601.	0.455
0.132	5.352	2.510	1.182	7.399	3.469	0.133	1254.	0.950	733.	0.555	618.	0.468	601.	0.455
0.128	5.280	2.474	1.178	7.399	3.467	0.129	1254.	0.950	734.	0.556	619.	0.469	602.	0.456
0.124	5.203	2.438	1.174	7.405	3.470	0.125	1254.	0.951	736.	0.558	619.	0.470	602.	0.457
0.121	5.122	2.397	1.171	7.421	3.473	0.122	1253.	0.950	737.	0.559	620.	0.470	603.	0.457
0.118	5.044	2.357	1.168	7.436	3.475	0.119	1253.	0.950	739.	0.560	621.	0.471	603.	0.457
0.115	4.967	2.319	1.165	7.448	3.477	0.116	1253.	0.950	740.	0.561	622.	0.471	604.	0.458
0.112	4.880	2.276	1.162	7.464	3.481	0.113	1252.	0.949	742.	0.562	623.	0.472	604.	0.458
0.108	4.782	2.228	1.158	7.474	3.482	0.109	1251.	0.948	743.	0.563	623.	0.473	605.	0.459
0.104	4.687	2.171	1.154	7.485	3.483	0.105	1249.	0.947	745.	0.565	624.	0.473	606.	0.459
0.099	4.535	2.108	1.149	7.493	3.482	0.100	1247.	0.945	746.	0.566	625.	0.474	606.	0.460
0.094	4.380	2.034	1.144	7.494	3.480	0.095	1243.	0.942	748.	0.567	626.	0.475	607.	0.460
0.089	4.203	1.949	1.139	7.514	3.485	0.090	1238.	0.938	749.	0.568	627.	0.475	607.	0.461
0.084	4.006	1.857	1.134	7.521	3.487	0.085	1230.	0.932	750.	0.569	627.	0.476	608.	0.461
0.079	3.783	1.752	1.129	7.530	3.488	0.080	1220.	0.925	752.	0.570	628.	0.476	609.	0.462
0.076	3.545	1.641	1.126	7.540	3.491	0.077	1208.	0.916	753.	0.571	629.	0.477	610.	0.462
0.072	3.325	1.538	1.122	7.545	3.489	0.073	1195.	0.906	754.	0.572	630.	0.478	611.	0.463
0.068	3.109	1.438	1.118	7.554	3.494	0.069	1180.	0.894	756.	0.573	631.	0.478	612.	0.464
0.064	2.899	1.340	1.114	7.560	3.495	0.065	1165.	0.883	757.	0.574	631.	0.479	613.	0.464
0.059	2.689	1.243	1.109	7.564	3.495	0.060	1141.	0.865	758.	0.575	632.	0.479	614.	0.465
0.055	2.477	1.144	1.105	7.575	3.499	0.056	1117.	0.847	760.	0.576	633.	0.480	616.	0.467
0.050	2.269	1.048	1.100	7.581	3.502	0.051	1088.	0.825	761.	0.577	634.	0.480	618.	0.468
0.044	2.069	0.956	1.094	7.586	3.504	0.045	1055.	0.800	762.	0.578	634.	0.481	621.	0.471
0.040	1.881	0.869	1.090	7.600	3.509	0.041	1020.	0.774	763.	0.579	635.	0.482	623.	0.472
0.035	1.718	0.793	1.085	7.614	3.516	0.036	991.	0.752	764.	0.580	636.	0.482	625.	0.475
0.031	1.575	0.727	1.081	7.617	3.517	0.032	963.	0.730	766.	0.581	636.	0.483	627.	0.476
0.028	1.444	0.667	1.078	7.623	3.520	0.029	936.	0.710	767.	0.582	637.	0.484	629.	0.478
0.023	1.335	0.616	1.073	7.634	3.524	0.024	910.	0.690	768.	0.583	638.	0.484	631.	0.479
0.019	1.233	0.569	1.069	7.639	3.526	0.020	880.	0.668	769.	0.584	639.	0.485	633.	0.480

DATE = 9-20-73  
 PROJECT NUMBER - VA353-218A  
 ARC, INC.  
 ARNOLD AIR FORCE STATION, TENN.  
 KASA/RI 0-9 SHUTTLE TEST  
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GROUP	MODEL	MACH NO	PC (PSIA)	TC (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW					
61	139	7.95	248.2	1318.	30.01	-0.01	30.00	180.00	0					
T-INF (DEG R)	P-INF (PSIA)	P01 (PSIA)	Q-INF (PSIA)	Q-INF (FT/SEC)	RMC-INF (LBH/FT3)	ML-INF (LBH/FT-SEC)	RE/FT (FT-1)	X (IN)	Y (IN)	X/L	L (IN)			
96.6	0.0265	2.167	1.171	3832.	0.734E-03	0.250E-05	0.113E 07	20.32	0.0	0.90	22.58			
ZP1 (IN)	PP1 (PSIA)	PP1/PU1	ZP2 (IN)	PP2 (PSIA)	PP2/PU1	ZT2 (IN)	TT2 (DEG R)	TT2/TO	Tw1 (DEG R)	Tw1/TO	Tw2 (DEG R)	Tw2/TO	Tw3 (DEG R)	Tw3/TO
0.015	1.144	0.528	1.065	7.651	3.531	0.016	648.	0.643	770.	0.585	639.	0.485	635.	0.482
0.011	1.064	0.491	1.061	7.654	3.533	0.012	773.	0.586	772.	0.585	640.	0.486	637.	0.483
0.009	0.998	0.460	1.059	7.660	3.536	0.010	769.	0.584	773.	0.586	641.	0.486	639.	0.485
0.007	0.946	0.436	1.057	7.661	3.536	0.008	799.	0.606	774.	0.587	641.	0.487	641.	0.486
0.007	0.882	0.407	1.057	7.664	3.539	0.008	797.	0.605	775.	0.588	643.	0.488	643.	0.488